Run on:

Title:

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GENERAL INFORMATION:
APPLICANT: Siminazky, Balazs
APPLICANT: Deway, Ralph E.
APPLICANT: Ocrbin, Frederick T.
TITLE OF INVENTION: No. 6121512el Cytochrome P-450 Constructs and
TITLE OF INVENTION: Methods of Producing Herbicide-Resistant Transgenic Plants
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
                    Sequence 11, Appl. Sequence 63, Appl. Sequence 129, Appl. Sequence 49, Appl. Sequence 14, Appl. Sequence 17, Appl. Sequence 24, Appl. Sequence 28, Appl. Sequence 29, Appl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBW PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
US-09-292-768-5
US-08-96-86-81
US-08-96-86-86-8
US-09-016-990-63
US-09-016-990-63
US-08-313-075A-29
US-08-313-075A-29
US-08-313-075A-49
US-08-313-075A-49
US-08-313-075A-49
US-09-616-990-64
US-09-616-990-64
US-09-616-990-64
US-09-0126-420A-1
US-09-126-420A-1
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NAME: Bencett, Vitginia C.
REGISTRATION NUMBER: 37,092
REFERENCE/DOCKET NUMBER: 5051-409
TELEPHONE: 919-854-1400
TELEPHONE: 919-854-1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/948,564 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Virginia C. Bennett
STREET: PO Box 37428
CITY: Raleigh
STATE: No. 6121512th Carolina
COUNTRY: USA
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INFORMATION FOR SEO ID NO:
SEOUTENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
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STATE: NC.
COUNTRY: USA
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US-08-948-564-13
       Command line parameters:
-MODEL-frame+pan.model.-DEV=xlh
-MODEL-frame+pan.model.-DEV=xlh
-MODEL-frame+pan.model.-DEV=xlh
-DB-ISSUED_spool/USO985781/runat_27052003_150658_10345/app_query.fasta_1.711
-DB-ISSUED_spool/USO985781/runat_2705.rni -MINRATCH-0.1 -LOOPCL-0
-LOOPEXT=0 -UNITS-bits -STRAT=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST-45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN-0 -ALIGN=15
-MODE=LOCAL -OUTPMT=pto -NORM=ext -HEARSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER-USO955781_GCGN_1.140_@runat_27052003_150658_10345 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NGG_SCORES-0 -MAIT -DSPBLOCK=100 -LONGLOG
-ISCAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Sequence 1, Appli
Sequence 5, Appli
Sequence 65, Appli
Sequence 8, Appli
Sequence 8, Appli
Sequence 7, Appli
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/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                       GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd
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US-09-499-302A-1
US-09-292-768-1
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US-09-292-768-69
US-09-292-768-69
US-09-351-229-3
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Match Length
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Result No.

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Sequence 1, Application US/09499302A
Sequence 1, Application US/09499302A
Setent No. 6369212
GENERAL INFORMATION:
APPLICANT: BOUNG-JUN, OH
APPLICANT: WOON, KYUNG KO
APPLICANT: YOUNG, SOON KIM
TITLE OF INVENTION: A CYTOCHROME P450 GENE HIGHLY EXPRESSED IN T
TITLE OF INVENTION: A LOWDPATIBLE INTERACTION
FILE REFERENCE: 10324/P6443USO
CURRENT APPLICATION NUMBER: US/09/499;302A
CURRENT FILING DATE: 2000-02-07
NUMBER OF SEQ ID NOS: 10
SOFTWARE: PLENTIN Ver. 2.1
SEQ ID NO 1
LENGTH: 1781
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US-09-499-302A-1
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Matches:
Conservative:
Mismatches:
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Gaps:
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     pairs
LENGTH: 1824 base pair
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
FEATURE:
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Best Local Similarity
                                                                     ), NAME/KEY;
; LOCATION;
US-08-948-564-13
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ORGANISM: Capsicum annuum
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                                               Alignment Scores:
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US-09-499-302A-1
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                             1030 GGTTTTCAACAAATTGATCTTGATGAGTTGAAGTACTTGAAGTTAGTAATCAAAGAAACT
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APPLICANT: Croteau, Rodney B.
APPLICANT: Lupien, Shari L.
APPLICANT: Lupien, Shari L.
APPLICANT: KATP, Frank
TITLE OF INVENTION: RECOMBINANT MATERIALS AND METHODS FOR
TITLE OF INVENTION: THE PRODUCTION OF LIMONENE HYDROXYLASES
NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Christensen, O'Connor, Johnson and Kindness
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1420 Fifth Avenue, Suite 2800
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MEDIUM TYPE: Floppy disk
COMPUTER: TBM FC COMPACIALE-
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
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APPLICATION NUMBER: US/08/881,784
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REGISTRATION NUMBER: 26,997
REFERENCE/DOCKET NUMBER: WST
TELECOMMUNICATION INFORMATION:
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NAME: Shelton, Dennis K.
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CLASSIFICATION:
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Patent No. 6194185
GENERAL INFORMATION:
APPLICANT: Croteau, Rodney B
APPLICANT: Lupien, Shari L
APPLICANT: Karp, Frank
TITLE OF INVENTION: RECOMBINANT MATERIALS AND METHODS FOR THE PRODUCTION OF
FILE REFERENCE: waur13463
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       623 TIGGIGAAGGAGTCGCTGGCATTGGCGTCCGGGTTTGAGCTGGCGGAT---CTCTACCCT 679
                                                                         TCCTCATGGCTCCTCAACCTGCTTAGCTTGAACAAGTAC-----AGGTTGCAGAGGATG 733
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Matches:
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LOCATION: 558.1212
OTHER INFORMATION: /product=
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! LOCATION: 39..538

. OTHER INFORMATION: /product-
TELEPHONE: (206) 224-0718
TELEFAX: (206) 224-0779
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 1762 base pairs
TYPE: nucleic acid
STRANDENNESS: asingle
                                                                                                                                    MOLECULE TYPE: CONA
ORIGINAL SOURCE:
ORGANISM: Mentha spicata
INDIVIDUAL ISOLATE:
IMMEDIATE SOURCE:
CLONE: PSM12.2
FEATURE:
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CURRENT APPLICATION NUMBER: US/09/292,768
CURRENT FILING DATE: 1999-04-14
EARLIER APPLICATION NUMBER: 08/881,784
EARLIER FILING DATE: 1997-06-24
NUMBER OF SEQ ID NOS: 70
SSOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1
LENGTH: 1762
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                                                                                                       TYPE: DNA ORGANISM: Mentha spicata
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LOCATION: (20)..(1507)
US-09-292-768-1
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APPLICANT: LUDIENT. Shari L
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APPLICANT: LUDIENT: Shari L
APPLICANT: LUDIENT: Shari L
APPLICANT: RAPP, FRANK
TITLE OF INVENTION: LIMONENE HYDROXYLASES
FILE REPERENCE: WAINTIANG
CURRENT APPLICATION NUMBER: US/09/292,768
CURRENT APPLICATION NUMBER: US/09/292,768
CURRENT APPLICATION NUMBER: 08/881,784
EARLIER PILING DATE: 1997-06-24
NUMBER OF SEQ ID NOS: 70
SOFTWARE: PATENTIN Ver. 2.0
SOFTWARE: PATENTIN Ver. 2.0
ArgArg***AsnGlyGlu*****GluGlyGlu***SerGlyVal***Leu---AspThr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA ORGANISM: Artificial Sequence
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GlyLeuValValAsp***PheSerAlaGly***AspSerThrAla*****ThrGluTrp
                                                                                                                                                       316 AlaLeuAlaGluLeuIleAsnAsnPro***ValLeu*****AlaArgGluGlu***Tyr
                                                                                                                                                                                                                                                                                       SerValValGlyLysAsp***LeuValAspGluValAspThrGlnAsnLeuProTyrIle
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                                                                                           CTTTTCAGGATGCAGAAGGGCAGCGACATCAAAATTCCCATTACTTCCAATTGCATCAAG
                                                                                                                                                                                                                                                                                                                                                               ArgAlaIleValLysGluThrPheArgMetHisProProLeuProValValLysArgLys
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                                                   LeuLeuGluPheAlaGluAspGluThr***GluIleLysIleThrLys*****IleLys
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Patent No. 6038731
APPLICANT: Croteau, Rodney B. APPLICANT: Luplen, Shari L. APPLICANT: Ratp. Frank
TITLE OF INVENTION: RECOMBINANT MATERIALS AND METHODS FOR TITLE OF INVENTION: THE PRODUCTION OF LIMONENE HYDROXYLASES NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Christensen, O'Connor, Johnson and Kindness ADDRESSEE: PLLC
STREET: 1420 Fifth Avenue, Suite 2800
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   449 GTCAGGTCCTTCGGGTACATAAGGCAGGAGGAGATCGAGCGCCTCATCCGGCTGCTCGGG 508
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyProTyrTrp***PheValArgLysLeuIleMetAsnAspLeuLeuAsnAlaThrThr 144
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          OTHER INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: computer-generated nucleic acid sequence encoding OTHER INFORMATION: limonene-6-hydroxylase
                                                                                                                                encoding
                                                                                NAME/KEY: misc_feature
LOCATION: (1)..(1762)
OTHER INFORMATION: computer-generated nucleic acid sequence
OTHER INFORMATION: spearmint limonene-6-hydroxylase variant
FEATURE: NAME/KEY: CDS
                                                                                                                                                                                                                                                                                     1762
148
93
212
41
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Mismatches:
Indels:
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Matches:
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48.79%
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-09-292-768-65
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Best Local Similarity:
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APPLICANT: Croteau, Rodney B
APPLICANT: LUDien, Shari L
APPLICANT: Karp, Frank
TITLE OF INVENTION: RECOMBINANT MATERIALS AND METHODS FOR THE PRODUCTION OF
TITLE OF INVENTION: LIMONENE HYDROXYLASES
                                                                                                                                                                                                                                                                                                                                                                                                                    GluAspGluThr***GluIleLysIleThrLys*****IleLysGlyLeuValValAsp 300
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              TCCGGGTTCGAGCTCGCCGACATGTTCCCCTCCTCCAAGCTCTCAACTTGCTCTGGG
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                                                                                                                                                                                                                                                                                                               262 Glu******GluGlyGlu***SerGlyVal---***LeuAspThrLeuLeuGluPheAla
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381 ***IleAsnGly***Val***ProGluGlyAlaLeu*****PheAsnValTrpGlnVal
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Conservative:
Mismatches:
Indels:
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                 CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/881,784
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Shelton, Dennis K.
REGISTRATION NUMBER: 26,997
REGISTRATION NUMBER: 26,997
REGISTRATION NUMBER: 06,997
REGISTRATION NUMBER: 06,997
RECISTRATION NUMBER: 06,997
RECISTRATION NUMBER: 06,997
RELEPHONE: (206) 224-0779
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 1665 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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OPERATING SYSTEM: PC-DOS/MS-DOS
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IMMEDIATE SOURCE:
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Best Local Similarity:
Query Match:
DB:
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ORIGINAL SOURCE:
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GENERAL INFORMATION:
APPLICATY: Croteau, Rodney B
APPLICATY: Croteau, Rodney B
APPLICATY: Croteau, Redney B
APPLICATY: Croteau, Recombinant Materials and Methods for the Production of TITLE OF INVENTION: LIMONENE HYDROXYLASES
TITLE OF INVENTION: LIMONENE HYDROXYLASES
TILE REFERENCE: Wall 3463
CORRENT APPLICATION NUMBER: US/09/292,768
CURRENT FILING DATE: 1997-06-24
SARLIER FILING DATE: 1997-06-24
NUMBER OF SEQ ID NOS: 70
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 67
LENGTH: 1665
TYPE: DAA
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970 ATGAGGAATCCAGAGGTGAGGGGGAAAGGGGGAAGGGGG 1029
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                                                                                                                                                                                                                                                               910 ACGTTCTCAGCGGGGACCGAGACATCATCAACCACCACCTGTGGGTGATGGCGGAGCTG 969
                                  Glu******GluGlyGlu***SerGlyVal---***LeuAspThrLeuLeuGluPheAla 280
                                                                             -----AGCGGCGAGTTTGGCGGCGAGGACATTATTGACGTACTCTTTAGGATGCAG
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                                                                                                                         281 GluAspGluThr***GluIleLysIleThrLys******IleLysGlyLeuValValAsp
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; Sequence 67, Application US/09292768
; Patent No. 6194185
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                               US/09/292,768
FILE REFERENCE: waur13463
CURRENT APPLICATION NUMBER: US/09/292,766
CURRENT FILING DATE: 1999-04-14
EARLIER APPLICATION NUMBER: 08/881,784
NUMBER OF SEQ ID NOS: 70
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
LENGTH: 1665
                                                                                                                                                                                                                                                                                                                                                                                           3.33e-74
627.50
48.178
29.888
26.198
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                                                                                                                                                                                                                                                                           NAME/KEY: CDS
; LOCATION: (19)..(1518)
US-09-292-768-3
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Query Match:
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TYPE: DNA
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|-|| GACCTCACGGAGGGATAGCGACGCTGACGTGCTCCATCATCTGCAGGGCGGCGTTCGGG
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             FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: Computer-generated nucleic acid sequence encoding
OTHER INFORMATION: limonene-3-hydroxylase
                                                                FEATURE:
NAME/KEX: misc_feature
LOCATION: (1):.(1665)
OTHER INFORMATION: computer-generated nucleic acid sequence encoding
OTHER INFORMATION: limonene-3-hydroxylase variant
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147
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Matches:
Conservative:
Mismatches:
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ORGANISM: Artificial Sequence
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48.17%
29.88%
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) NAME/KEY: CDS

) LOCATION: (19)..(1518)

US-09-292-768-67
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Best Local Similarity:
Query Match:
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GENERAL INFORMATION:
APPLICANT: Croteau, Rodney B
APPLICANT: Croteau, Rodney B
APPLICANT: Croteau, Rodney B
APPLICANT: Karp, Frank
TITLE OF INVENTION: ERCOMBINANT MATERIALS AND METHODS FOR THE PRODUCTION OF
TITLE OF INVENTION: LIMONENH HYDROXYLASES
FILE REFERENCE: want13463
CURRENT APPLICATION NUMBER: US/09/292,768
CURRENT PEPLICATION NUMBER: 08/09/292,768
EARLIER APPLICATION NUMBER: 08/08/144
EARLIER FILING DATE: 1997-06-24
NUMBER OF SEQ ID NOS: 70
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 659
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262 Glu******GluGlyGlu***SerGlyVal---***LeuAspThrLeuLeuGluPheAla 280
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-LeuGlyPro

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Sequence 3, Application US/09351229

Patent No. 6380465

GENERAL INFORMATION (SYCOPTION)

TITLE OF INVENTION: Cytochrome P450 Enzymes and Related Compounds and TITLE OF INVENTION: Methods

TITLE OF INVENTION: Methods

TITLE OF INVENTION: Methods

FILE REFERENCE: P-1049

CURRENT APPLICATION NUMBER: US/09/351,229

CURRENT PILING DATE: 1999-07-11

EARLIER FILING DATE: 1989-07-12

NUMBER OF SEQ ID NOS: 498-07-12

NUMBER OF SEQ ID NOS: 498-07-12

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 3

LENGTH: 1806
                                                                                                                                                                                                                                                 281 GluAspGluThr***GluIleLysIleThrLys*****IleLysGlyLeuValValAsp
                                                                                                                                                                                                                                                                                                                                      1030 AAGACGGACTGGGACGTGGACGTGCAGGAGCTTAAGTACATGAAATCGGTGGTGAAG
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                                                                                             850 AAGGATAGCCAGATCAAAGTCCCCATCACCACCCAACGCCATCAAAGCCTTCATCTTCGAC
                                                                                                                                    ***PheSerAlaGly***AspSerThrAla*****ThrGluTrpAlaLeuAlaGluLeu
                                                                                                                                                                          910 ACGITCICAGCGGGACCGAGACATCATCAACCACCACCTGIGGGIGAIGGCGGAGCTC
                                                                                                                                                                                                                   IleAsnAsnPro***ValLeu*****AlaArgGluGlu***TyrSerValValGlyLys
                                                                                                                                                                                                                                                                                                Asp***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys
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ORGANISM: Zea mays
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TACGACAACGACGACATCTTCAGCCCTACAGCGTGCACTGGCGCCAGAGTGCGGAAG
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        OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: computer-generated nucleic acid sequence encoding
OTHER INFORMATION: limonene-3-hydroxylase
FEATURE:
LOALION: (1)..(1665)
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Matches:
Conservative:
Mismatches:
Indels:
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LOCATION: (19)..(1518)
US-09-292-768-69
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Best Local Similarity:
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Qy 332 Gluclu***TyrSerValValGlyLysAsp**LeuValAspGluValAspThrGlnAsn 351	391 AlaLeu*****PheasnvalTrpGlnValGly***Asp***LysTyrTrpAspArgPro :::	Db 1285 GAGGGGGGCATGCTTCCAGCTGCTTT[Qy 491 -MetGluGluArgAlaGlyLeuThrValProArgAlaHisSerLeuValCysValProLe 510		TITLE OF INVENTION: LEMONER HYDROXYLASES FILE REFERENCE: wsur13463 FILE REFERENCE: wsur13463 CURRENT APPLICATION UNMBER: US/09/292,768 CURRENT FILING DATE: 1999-04-14 EARLIER APPLICATION NUMBER: 08/881,784 SOFTWARE: Patentin Ver. 2.0 SOFTWARE: Patentin Ver. 2.0 TYPE: DNA TYPE: DNA) ORGANISM: Artificial Sequence ; FEATURES: ; OTHER INFORMATION: Description of Artificial Sequence: ; OTHER INFORMATION: computer-generated nucleic acid sequence ; NAME/KEY: CDS ; LCCATION: (20)(1507) ; OTHER INFORMATION: Computer-generated nucleic acid sequence encoding ; OTHER INFORMATION: limonene-6-hydroxylase variant US-09-292-768-63 Alignment Scores: Pred. No.: 9.16e-74 Length: 1762
ed. No.: 8.14e-74 Length: 1806 Forest Similarity: 5.00 Conservative: 90 st.Local Similarity: 26.09% Mismatches: 198 ery Match: 4 Gaps: -09-857-581-66 (1-521) x US-09-351-229-3 (1-1806) 35 ProproSerPro***ProArgLeuProPhelleGiyHis**HisLeuLeuLys	86 CCGCCGGGCCCCAAGCCATGGCCGATCATCGGCAACCTTAACCTCATGGGCGAG 55 LeuLeuHisTyrAla***IleAspleuSerLyshysHisGlyProLeuPheSer***** 140 CTGCCCACCGCTCCATGAACGAGCTCTCCAAGCGGTACGCTCTATGCAGCTCTGG 75 PheGlySerMetProThrValValAlaSerThrProGluLeuPheLysLeuPheLeuGln 11		154 GlnGlnIleArgLys**LeuArg***MetAlaGln***AlaGluAla***LysProLeu :::::::: ::	SCGCCGGACGCTGAGGGGGACTCAGCGCCGGCGATAACG AlaArgGluValLeuLysIle***GlyGluTyrSerLeu	Oy 215 ThraspPhelle***ProLeuLys***LeuLysValGlyLysTyrGluLysArg1leAsp 234	QY 272 ***LeuaspThrLeuleuGluPheAlaGluAspGluThr***GluIleLysIleThrLys 291

Mon Jun 2 10:33:45 2003

bb 995 GCGGAGGTAAGGGAAAGGAAGGAAGGATTTGAGCGAGGTGCAAGAG 1054 QY 352 LeuprotyrileargalaileVaiLysGluthrPheArgMetHisProProLeuproVal 371	0y 392 Leu*****PheAsnValTrpGlnValGly***Asp***LysTyrTrpAspArgProSer 411 1175 AGAATCTTCATCAGGGCTATCGGAAGGGATCCCCAATACTGGGAAGATCCCGAC 1234 Qy 412 Glu***ArgProGluArgPheLeuGluThr***AlaGluGlyGluAla*****LeuAsp 431 1235 ACCTTCGGCCTGAGAGTTCGATGAGGTTTCCAGG		Oy 492 GluGluArgAlaGlyLeuThrValProArgAlaHisSerLeuValCysValPro 509	APPLICANT: Education masser TITLE OF INVENTION: Limonene and Other Downstream TITLE OF INVENTION: Metabolites of Geranyl Pyrophosphate for Insect Control in TITLE OF INVENTION: Metabolites of Geranyl Pyrophosphate for Insect Control in TITLE OF INVENTION: Metabolites 0f. Geranyl Pyrophosphate for Insect Control in TITLE OF INVENTION: WHEER: US/09/172,339 CURRENT APPLICATION NUMBER: US/09/172,339 CURRENT FILING DATE: 1998-10-14 EARLIER PILING DATE: 1998-10-14 EARLIER PILING DATE: 1995-05-24 FARLIER APPLICATION NUMBER: 08/153,544	EARLIER FILING DATE: 1993-11-16 EARLIER FILING DATE: 1993-04-02 EARLIER FILING DATE: 1993-04-02 NUMBER OF SEQ ID NOS: 8 SOFTWARE: PastSEQ for Windows Version 3.0 SEQ ID NO 5 LENGTH: 1762 TYPE: DNA ORGANISM: Mentha splcata FEATURE: NAME/KEY: misc_feature LOCATION: (0)(0)(0)	CTHER INFORMATION: Carveol Synthase FRATURE: FRATURE: LOCATION: (20)(1507) US-09-172-339-5 Alignment Scores: Fred. No.: Foote: Foote
Score: 624.50 Matches: 147 Percent Similarity: 47.99% Conservative: 92 Best Local Similarity: 29.52% Mismatches: 210 Query Match: 26.06% Indels: 49 DB: 46 US-09-857-581-66 (1-521) x US-09-292-768-63 (1-1762) Qy 26 SerLysAlaLeuArgHisLeuProAsnProProSerPro***ProArgLeuProPheile 45 Db 101 ICGAANTCCCARCAAAAACCTACTCCARCAGATCCCARCAGAT 151	46 GlyHis***HisLeuLeuLysAspLysLeuLeuHisTyrAla***IleAspLeuSerLys 	0y 86 ProGluLeuPheLysLeuPheLeuGln*****GlualaThrSerPhe***ThrArgPhe 105	Valasn***LeuArgProLeuArgThrGlnGlnIleArgLys***LeuArg***MetAla GTCAGGTCCTTCGGGTACATAAGGCAGAGGAGATCGAGCGCTCATCGGGCTTGTGGGGGGTACATAAGGCAGAGAGAATCGAGCGCTCATCGGGGTTGGGGGGTACATAAAAAAAA	563 GTCGTCGTCGTCGCGCGTTCGCGAGTCGTCCTCAAGCACCAGCGTTCGTT	Oy 233 IleAspAspIleLeuAsnLysPheAspProValValGiuArgValileLysLysArgArg 252 1:1 1	*****IleLysGlyLeuValValAsp***PheSerAlaGly***AspSerThrAla*** 31

Dest Local Similarity; 29.356 Mismatches; 213 Desty Match: 25.776 daps: 141 Desty Match: 25.776 daps: 26.1773) QV 26 SetLyaAlaLeuArdHisteuProAraProProSerPro***ProArgleuProPheile DI TCGAAACCCACACACACACACACACACACACACACACACA	356	45	65 QY 396 211 Db 1187	95 Qy 416 GluargPh 	124 Qy 456 Thrserdl 124 Db 1346 CIGGCAAA 388	144 Qy 476 GlyProGl 	184 RESULT 13 US-09-292-768-5 ; Sequence 5, Applicat 562 ; Patent No. 6194185	200 ; GENERAL INFORMATION 200 ; APPLICANT: Croteau 622 ; APPLICANT: Lupien, i	TITLE OF INVENTION TITLE OF INVENTION TITLE OF INVENTION FILE REFERENCE: we 679	236 733	SOPTWARE: Patentif SEQ ID NO 5 SEQ ID NO 5 I.BNGTH: 1515	775 ; PRAIURE: , PRAIURE: , PARIURE: , NAME/KEY: CDS , LOCATION: (1)(14	292-768- ent Scor No.:	315 946	335 DB: US-09-857-581- 1006	SerValValGlyLysAsp***LeuValAspGluValAspThrGlnAsnLeuProTyrIle 355
Q Σ 00	<pre>imilarity: 29.35% Mismatches: 25.77% Indels: 4 Gaps: 1-66 (1-521) x US-09-172-339-5 (1-1762)</pre>	SerLysAlaLeuArgHisLeuProAsnProProSerPro***ProArgLeuProPhell 						SerThr***SerMetMet***LeuGly	-							336 SerValValGlyLysAsp***LeuValAspGluValAspThrGlnAsnLeuProTyrile

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GGGCTATCGGAAGGGATCCCCAATACTGGGAAGATCCCGACACCTTCCGCCCT 1246
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3AGTTCATCCCATTCGGGGGGGGTCGAAGAATCTGCCCCGGTTTACATTTCGG 1345
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                                                                                                                                                         3luGluCys***IleAsnGly***Val***ProGluGlyAlaLeu*****Phe 395
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1180 TCCATGGGAGAAGGTTT 12 1180 TCCATGGGAAAGGTTT 12 419 LeuGluThr***AlaGluGlyGluAla*****LeuAspLeuArgGly***HisPheGln 43 1240GACCAAGTTTCAAAGGATTTCATGGAAATTTCAGG 12 439 LeuLeuProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly 45 1279 TTCGTCCCGTTCGGAGGAAGAATTTGCGGTCGGCAAAC 13	Qy 459 ***AlaThrLeuLeuAlaSerLeulleGlnCysPheAspLeuGlnValLeuGlpProGln 478	RESULT 144 US-08-948-54-11 Squence 11, Application US/08948564 Squence 11, Application US/08948564 Squence 11, Application US/08948564 Squence 11, Application US/08948564 Squence 11, Application Squence 12 Applicant Dewey, Ralph E. Applicant Orion Frederick T. TITLE OF INVENTION: Methods of Producing Herbicide-Resistant Transgenic Plants NUMBER OF SEQUENCES. 23 CORRESPONDENCE ADDRESS: ADDRESSEE: Virginia C. Bennett CHEFT. DO HOW 37408	CITY: Raleigh STATE: No. 6121512th Carolina COUNTRY: USA 21P: 27627 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible COMPUTER: BATCOME STATE STATE STATE COMPUTER: OPERATING SYSTEM: PC-005/MS-D0S SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/948,564 FILING DATE: CLASSIPICATION: B00 CLASSIPICATION: B00 ATTORNEY AGENT INFORMATION: NAME: Pagnet Virginia	NAME: BEGINECLY, AIGUIDACE, AIGUIDACHAIDACHAIDACHAIDACHACHACHACHACHACHACHACHACHACHACHACHACHA
55 LeuLeuHisTyrAla***IleAspLeuSerLysLysHisGlyProLeuPheSer***** 74	Tyrasp*****Valala*****Pro***GlyProTyrTrp***PheValargLys	174 ASP***ThrGluGluLeuLeuLySTrp***ASnSerThr***SerMetMet***LeuGly 193 11		299 ValAsp***PheSerAlaGly***AspSerThrAla*****ThrGluTrpAlaLeuAla 318

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1439 ACAAGATTGGGAATACTTCTAGTGGAGTATATTTTGGGAACTTTGGTGCATTCTTTTGTT 1498
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                                          -GlyGluAlaGluGluIleArgAspIleAlaArg
                                                                                                                                                                                                                                                                                                                                                                                               LeuAspThrLeuLeuGluPheAlaGluAspGluThr***GluIleLysIleThrLys***
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                                                                                                                                      LeuLysValGlyLysTyrGluLysArgIleAspAspIleLeuAsnLysPheAspProVal
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                                                                                                                                                                                                                                                                                         851 TTGACTCGGTTGCTGGAAGAGCACACTGCATCGGCTCATGAGCGTAAAGGCAGCCCTGAT
                                                                                                                                                                                                                                                                                                                            -***AsnGlyGlu*****GluGlyGlu***SerGlyVal***
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ***IleLysGlyLeuValValAsp***PheSerAlaGly***AspSerThrAla*****
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                                                                                                               GluValLeuLysIle***GlyGluTyrSerLeuThrAspPheIle***ProLeuLys***
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Job time : 97 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTACTTAACGATATGGCTGTTGGAAATGGCGTTTTACTTCACATTGCTGCATCATTGATG 139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114 ThrTyrAsp***---**ValAla*****Pro***GlyProTyrTrp***PheValArg
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152
97
222.
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Matches:
Conservative:
Mismatches:
Indels:
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                                                                                                                                                                                                                                                                                                                                                                                               experiment
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP44963/92
FILING DATE: 02-MAR-1992
ATTORNEY AGENT INFORMATION:
NAME: PEITY, LAWIENCES.
REGISTRATION NUMBER: 31865
TELEPHONE: 212-218-210
TELEPHONE: 212-218-210
INFORMATION FOR SEQ ID NO: 63:
SEQUENCE CHARACTERISTICS:
LENGTH: 2174 base pairs
                                                                                                                                                                                                                                                                                                                        ORGANISM: Eustoma russellianum
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28.15%
24.31%
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                                                                                                                                                                                                                                   nucleic acid
EDNESS: double
                                                                                                                                                                                                                                                                      linear
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TYPE: nucleic ac
STRANDEDNESS: dc
TOPOLOGY: linea
MOLECULE TYPE: cD
ORIGINAL SOURCE:
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Best Local Similarity:
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Sequence 1506. Appl Sequence 55. Appl Sequence 124. Appl Sequence 2124. Appl Sequence 72, Appl Sequence 5500. Appl Sequence 53. Appl

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SPELICANT: Harper, Jeff
APPLICANT: Kreps, Joef
APPLICANT: Kreps, Joef
APPLICANT: Wang, Xun
APPLICANT: Wang, Xun
APPLICANT: Wang, Xun
APPLICANT: Alu, Tong
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
TITLE OF INVENTION: SAME, AND METHODS OF USE
TITLE OF INVENTION NUMBER: US 60/227, 866
PRIOR FILING DATE: 2000-08-24
PRIOR APPLICATION NUMBER: US 60/264,647
PRIOR APPLICATION NUMBER: US 60/300,111
PRIOR APPLICATION NUMBER: US 60/300,111
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 5379
SEQ ID NO 1009
SEQ ID NO 1009
US-09-814-786-1
US-09-938-842A-1997
US-09-947-027-3
US-10-091-009-3
US-09-938-842A-1506
US-10-142-231-55
US-10-067-534-1
US-09-938-842A-2124
US-09-938-842A-2124
US-09-938-842A-2124
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US-10-142-231-53
US-09-938-842A-269
US-09-938-842A-1189
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US-09-938-842A-1189
US-09-938-842A-1189
US-09-938-842A-1301
US-09-938-842A-2354
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US-09-938-842A-2278
US-09-938-842A-2278
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US-09-938-842A-2278
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US-09-938-842A-1188
US-09-938-842A-1479
US-09-938-842A-1359
US-09-938-842A-1362
US-09-931-842A-1362
US-09-931-267-1
US-09-931-267-1
US-09-931-267-1
US-09-931-267-2
US-09-938-842A-814
US-09-931-267-2
US-09-938-82A-814
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US-09-349-385-9
US-09-938-842A-1300
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US-09-770-445-543
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1009, Application US/09938842A Patent No. US20020160378A1 GENERAL INFORMATION:
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 JS-09-938-842A-1009
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 TYPE: DNA
 Sequence 1009, Ap
Sequence 199, App
Sequence 63, Appl
Sequence 64, Appl
                                                                                               (without alignments)
2964.128 Million cell updates/sec
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2396
1 MLLELALGLXVLALFXHLRP......AHSLVCVPLARIGVASKLLS
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/ Cgn2_6/ptodate/1/pubpna/USO6_NEW_PUB.seq:*
/ Cgn2_6/ptodate/1/pubpna/USO6_NEW_PUB.seq:*
/ Cgn2_6/ptodate/1/pubpna/USO6_NEW_PUB.seq:*
/ Cgn2_6/ptodate/1/pubpna/USO6_NEW_PUB.seq:*
/ Cgn2_6/ptodate/1/pubpna/USO8_NEW_PUB.seq:*
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/ Cgn2_6/ptodate/1/pubpna/USO8_PUBCOMB.seq:*
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Copyright (c) 1993 - 2003 Compugen Ltd.
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Sequence 2669, Apple Sequence 2172, Apple Sequence 1172, Apple Sequence 1172, Apple Sequence 1301, Apple Sequence 2378, Apple Sequence 638, Apple Sequence 1473, Apple Sequence 1473, Apple Sequence 1473, Apple Sequence 1182, Apple Sequence 1

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Db 1039 GGTCAGAAAGGTGTTGTTGAAGAGTCTGATATCTCGGCACTTCCCTATCTACAAGCAGTG 1098 Oy 359 ValLysGluThrPheArgMetHisProProLeuProValValLysArgLysCys*** 377 1099 GTGAAGGAAACTTTCCGGTTACATCCGGCTACTACCCCAAAAAGCTGAA 1158	Oy 378 GluGluCys***IleAsnGly***Val***ProGluGlyAlaLeu*****PheAsnVal 397 :::	Qy 418 PheLeuGluThr***AlaGluGlyGluAla*****LeuAspLeuArgGly***HisPhe 437	Gly***AlaThrLeuLeuAlaSerleuIleGlnCysPheAspLeuGlnValL ACAGTGCCTCTTATGCTTGCTTCTTTTTTTTTTTTTGACTGGAAGCTT- GlnGlyGlnIleLeuLysGly***AspAlaLysValSerMetGluGluArgA	Qy 498 ThrValProArgAlaHisSerLeuValCysValProLeuAlaArg1leGly 514	γ ₀	SHIMADA, OHBAYASH; SHIMADA, OKINAKA,	CORRESPONDENCE: b/ CORRESPONDENCE ADDRESS: b/ ADDRESSEE: FITZPATRICK, CELLA, HARPER & SCINTO STREET: 30 Rockefeller Plaza CITY: New York	STATE: New York COUNTRY: U.S.A. ZIF: 10112-3801 COMPUTER READABLE FORM: MEDIUM TYPE: DISKette - 3.50 inch, 720 Kb storage. COMPUTER: IBM PS/V. OPERATING SYSTEM: MS-DOS Ver3.30	PATENT AID Verl.0 TION DATA: N NUMBER: US/09/814 E: 23 Mar-2001 ON DATA: N NUMBER: US/09/616	FILING DATE: 14 Jul - 2000 APPLICATION NUMBER: 14 Jul - 2000 FILING DATE: 0.2 **NR*-1992 ATTORNEY/AGENT INFORMATION: NAME: Perry, Lawrence S. REGISTRATION NUMBER: 31865 TELECOMMUNICATION INFORMATION: TELEPHONE: 212 - 218 - 2100
DB: 14 US-09-857-581-66 (1-521) x US-09-938-842A-199 (1-1539) Oy 12 LeuAlaLeuPhe***HisLeuArgProThrPro***Ala***SerLysAlaLeuArgHis 31 ::::::::::::::::::::::::::::::::::::	32 LeuproAsnProProSerPro***ProArgLeuProPhelleGlyHis***HisLeuLeu 51 ::: ::: :::	Ser*****PheGlySerMetDroThValvalalaSerThrProGluLeuPheLySLeu	112 1337 130 397	Qy 150 ProLeuargThrGlnGlnIleargLys***Leuarg***MetalaGln***AlaGluala 169	170 ***LysProLeuAsp***ThrGluGluLeuLeuLysTrp***AsnSer 18	Db 577 ATTCTGTTTTCTGTCGATCTCGGTAACTACGACTCGAAAAACCGGGTGTTTCAAGAC 636 Qy 201 IleAlaArgGluValLeuLysIle***GlyGluTyrSerLeuThrAspPheIle***Pro 220	221 LeuLys***LeuLysValGlyLysTyrGluLysArglleAspAspileLeuAsnLysPhe 24	OY 241 ASPRIOVALVALGIDARGVALILELYSLYSARGARG***ILEVARGARG 258 Db 757 TTTAAGGTTTTCCGTGGGTTCATTGATGCTAATTAGCGGAAAATCATTGCGGGATACT 816 OY 259 ***ASDGJYGJU*****GLUGJYGJU***SerGJYVA]***LeuASDThrLeuLeuGJU 278 11	euval 2 ::: Trcrc 9 euAla 3	Db 919 TIGGACCTGTTTGGAGGGGCACACACACTCTAGTACCGTGGATGGCCATGGT 978 Qy 319 GluLeulleAsnAsnPro***ValLeu*****AlaArgGluGlu***TyrSerValVal 338

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|GAAATGGACGGTGTGATCGGCCGAGACCGGCGGTTTCTTGAGGCAGACATATCAAAGTTG
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                                        LeuLysValGlyLysTyrGluLysArgIleAspAspIleLeuAsnLysPheAspProVal
                                                                                                                                                                                                                                                                     LeuAspThrLeuLeuGluPheAlaGluAspGluThr***GluIleLysIleThrLys***
                                                                                                                                                                                                                                                                                                                                            ***IleLysGlyLeuValValAsp***PheSerAlaGly***AspSerThrAla*****
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                                                                          ATGGATTTGCAGGGGATTCAGGGGGGGAATGAAACGGTTGCATAAGAAGTTTGATGCTTTG
                                                                                                                 ValGluArgValIleLysLysArgArg***IleValArgArgArg----
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KIYOKAWA, Shigeto
SHIMBAA, Yukihisa
OHBAYBAHI, Masaya
SHIMBAA, Ritsuko
OKINAKA, Yasushi
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152
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222
69
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Matches:
Conservative:
Mismatches:
Indels:
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                                                                                                                                                                                                      NAME/KEY: CDS
LOCATION: 92 to 1621
IDENTIFICATION METHOD: by experiment
SEQUENCE DESCRIPTION: SEQ ID NO: 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetLeuLeuGluLeuAlaLeuGlyLeu***Val-
                                                                                                                                                                        ORGANISM: Eustoma russellianum
INFORMATION FOR SEQ ID NO: 63 :
SEQUENCE CHARACTERISTICS:
LENGTH: 2174 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                           TOPOLOGY: linear MOLECULE TYPE: cDNA to mRNA ORIGINAL SOURCE.
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582.50
46.11%
28.15%
24.31%
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Query Match:
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1334 AAACCTCCCAAGAATCTCAACAGGAGCATGTGGAAGTGGACGGATTTCACATACCAAAAA 1393
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                           131 lArgLysLeulleMetAsnAspLeuLeuAsnAlaThrThrValAsn***LeuArgProLe 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    938 TGATATGAAGGTTATACAGAAAAGTTTGATGTCTTGTTGAACAAAATGATCAAGGAACA
                                                                  578 GCGAAAGCTAGTAGCTTGCACATGTTAGGCCCGAAGGCACTCGAGGATTGGGCTCATGT
                                                                                                           uArgThrGlnGlnIleArgLys***LeuArg***MetAlaGln***AlaGluAla***Ly
                                                                                                                                                                                                                                           698 GCCAGTGCCAGTGGTGCCAGAGATGTTAACTTATGCCATGGCTAATATGATTGGACG
                                                                                                                                                                                                                                                                                                                               758 AATCATACTCAGCCGACGCCCTTTTGTTATCACGAGCAAATTAGACTCGTCTTCTGC
                                                                                                                                                                                                                                                                                                                                                                        191 *LeuGlyGluAlaGluGluIleArgAspIleAlaArgGluValLeuLysIle***GlyGl
                                                                                                                                                                                                                                                                                                                                                                                                             818 ITCTGCTTCTGTTAGTGAATTCCAATATAGGTTATGGAGCTCATGAGGATGGCAGGGTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    271 1***LeuAspThrLeuLeuGluPheAlaGluAspGluThr***GluIleLySIleThrLy
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                                                                                                                                                    CAAAGTTTCAGAGGTCGGTCATATGCTCAAAGAAATGTACGAGCAATCGAGTAAGTCAGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        998 TACAGAATCCGCTCATGATGCAAAGATAATCCTGAT------
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                                                                                                  CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10112-3801
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage.
                                                                  HARPER & SCINTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1927
141
101
212
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Matches:
Conservative:
Mismatches:
Indels:
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                                                                                                                                                                                                                             COMPOTER: IBM PS/V
OPERATING SYSTEM: MS-DOS Ver3.30
SOFTWARE: PATENT AND Ver1.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/814,786
FILING DATE: 23-Mar-2001
PRIOR APPLICATION NUMBER: US/09/616,990
FILING DATE: 14-Jul-2000
APPLICATION NUMBER: US/09/616,990
ATTORNEY/AGENT INFORMATION:
TITLE OF INVENTION: NOVEL PLANT GENES NUMBER OF SEQUENCES: 67 CORRESPONDENCE ADDRESS:
                                                               CELLA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: PEITY, LAWTENCE S.
REGISTRATION NUMBER: 31865
TELECOMUNICATION INFORMATION:
TELEPHONE: 212-218-210
INFORMATION FOR SEQ ID NO: 64:
SEQUENCE CHARACTERISTICS:
LENGTH: 1927 base pairs
TYPE: NUCLEIC acid
STRENDEDNESS: Gouble
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: 180 to 1748
IDENTIFICATION METHOD: by ex
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Campanula medium
                                                             ADDRESSEE: FITZPATRICK, STREET: 30 Rockefeller
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575.50
48.02%
27.98%
24.02%
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Best Local Similarity:
Query Match:
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Query Match: 23.98% Indels: 67 DB: 10 Gaps: 13 US-09-857-581-66 (1-521) x US-09-814-786-1 (1-1824) QY MetLeuLeuGluLeuAlaLeuGlyLeu**valLeuAlaLeuPhe***HisLeuArg 19	40 ProArgLeuProPhelleGlyHis***HisLeuLeuLysAspLysLeuLeuHisTyr	2 7 4 6 6 6 7 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	118 ***Valala******Pro***GlyProTyrTrp***PheValArgLySLeuileMetAsn 118 ***Valala******Pro***GlyProTyrTrp***PheValArgLySLeuileMetAsn 118 ***Valala******Pro***GlyProTyrTrp***PheValArgLySLeuileMetAsn 118 ASPLEULEUASAATATGGACATATGGAAATTGTGCAAATATGGGAAATTGTGCAATAGGGAAAATTGGGCAAAAATTGGGCAAAAATTGGGCAAAAATTGGGCAAAAATTGGGCAAAAATTGGGCAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGGGCAAAAAATTGAGCAATAGACTTAGGG		698 GTAGATAAAGGTGTGTGAGGTAAATGAATTTAAGGACATGGTTGTAGAGTTAATGACAATA 209 ***GlyGlufyrSerLeuThrAspPheIle***ProLeuLys***LeuLysValGlyLys 111 :::::::	249 LysLysargarg***Ilevalargargarg	31
Oy 470 eAspLeuGlnValLeuGlyProGlnGlyGlnIleLeuLysGly***AspAlaLysValSe 490	RESULT 5 US-09-814-786-1 Sequence 1, Application US/09814786 Settent No. US20020100072A1 GENERAL INFORMATION: KIVOKRAN, Shigeto SHYMADA VUK Hisa	OFBRYASHI, Macaya SHIMADA, Ritsuko SHIMARA, Yasushi TITLE OF INVENTION: NOVEL PLANT GENES NUMBER OF SEQUENCES: 67 CORRESPONDENCE ADDRESS: ADDRESSE: FITZPATRICK, CELLA, HARPER & SCINTO STREDT: 30 ROOKEFELLE, PLAZA	CITY: New York STATE: New York COUNTRY: U.S.A. ZIP: 10112-3801 COMPUTER READABLE FORM: MEDIUM TYPED DISKette - 3.50 inch, 720 Kb storage. COMPUTER: IBM PS/V OPERATING SYSTEM: MS-DOS Ver3.30	SOFTWARE: PATENT AID Verl.0 CURENT APPLICATION DATA: APPLICATION NUMBER: US/09/814,786 FILING DATE: 23-Mar-2001 PRIOR APPLICATION DATE: PRIOR APPLICATION DATE: US/09/616,990 FILING DATE: 14-Jul-2000 APPLICATION NUMBER: UF44963,92 FILING DATE: 102-MAR-1992 ATTORNEY/AGENT INFORMATION:	NAME: Perry, Lawrence S. REGISTRATION NUMBER: 31865 TELECOMMUNICATION INFORMATION: TELEPHONE: 212-218-2100 INFORMATION FOR SEQ 1D NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 1824 base pairs TYPE: nucleic acid STRANDEDRESS: double	MOLECULE TYPE: CDNA to mRNA ORIGINAL SOURCE: ORGANISM: Petunia hybrida STRAIN: Falcon Blue FEATURE: NAME/KEY: CDS LOCATION: 116 to 1633 LOCATION: 16 to 1633 SEQUENCE DESCRIPTION: SEQ ID NO: 1 US-09-814-786-1	Alignment Scores: 3.51e-74 Length: 1824 Score: 574.50 Matches: 151 Percent Similarity: 45.51% Conservative: 92 Best Local Similarity: 28.28% Mismatches: 224

: -09-857-581-66 (1-521) x US-09-938-842A-1997 (1-1575) 26 SerLysAlaLeuArgHisLeuProAsnProProSerPro***ProArgLeuProPheIle 45	Db 127 TCCAAATCCAAGAACGGACCACGGTGCCTCGGGGACCTTGGCCACTTCGGATCGTC 183 Qy 46 GlyHis***HisLeuLeuLysAspLysLeuLeuHisTyrAla***IleAspLeuSerLys 65	Qy 66 LysHisGlyProLeuPheSer*****PheGlySerMetProThrValValalaSerThr 85	Qy 86 ProGluLeuPheLysLeuPheLeuGln*****GluAlaThrSerPhe***ThrArgPhe 105	Qy 106 GlnThrSerAla***Arg***LeuThrTyrAsp*****ValAla*****Pro*** 124 ::	Qy 125 GlyProTyrTrp***PheValArgLySLeulleMetAsnAspLeuLeuAsnAlaThrThr 144	Oy 145 Valasn***LeuargProLeuargThrGlnGlnIleargLys***Leuarg***Metala 164 ::	Qy 165 Gln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeuLysTrp*** 183 :::	Qy 184 AsnSerThr***SerMetMet	Oy 193 GlyGlualaGluGluIleArgAspIleAlaArgGluValLeuLysIle**GlyGluTyr 212	Oy 213 SerLeuThrAspPhelle***ProLeuLys***LeuLysValGlyLysTyrGluLysArg 232 ::: ::	Qy 233 IleAspAspIleLeuAsnLysPheAspProValValGluArgValIleLysLysArgArg 252 ::	Qy 253 ***IleValargArgArg***AsnGlyGlu*****GluGlyGlu***SerGlyVal*** 272 :::	Qy 273 LeuAspThrLeuLeuGluPheAlaGluAspGluThr**GluIleLysIleThrLys*** 292	Qy 293 ***IleLysGlyLeuValValAsp***PheSerAlaGly***AspSerThrAla***** 312 :::	Qy 313 ThrGluTrpAlaLeuAlaGluLeuIleAsnAsnPro***ValLeu******AlaArgGlu 332' ::: ::: :::	333 Glu***TyrSerValValGlyLysAsp***LeuValAspGluValAspThrGlnAsnLeu	Qy . 353 ProTyrlleArgAlalleValLysGluThrPheArgMetBisProProLeuProVal 371
318 AlaGluLeuIleAsnAsnPro***ValLeu*****AlaArgGluGlu***TyrSerVal	DD IIIB ATTGGAAGAATAGGCGTTTACTCGAATCCCGAATCTCCCTTACCTCGGGG 1177 Qy 358 IlevallysGluThrPheArgMetHisProProLeuProvalvallysArgLysCys 376	QY 377 ***GluGluCys***IleAsnGly***Val***ProGluGlyAlaLeu******Pheasn 396	Qy 397 ValTrpGlnValGly***Asp***LysTyrTrpAspArgProSerGlu***ArgProGlu 416 :::	Oy 417 ArgPheLeuGluThr***AlaGluGlyGluAla*****LeuAspLeuArgGly***His 436	Qy 437 PheGinLeuLeuProPheGlySerGlyArg***WetCysProGlyVal***LeualaThr 456	<pre>Qy 457 SerGly***AlaThrLeuLeuAlaSerLeuIleGlnCysPheAspLeuGlnValLeuGly 476 Db 1466 GTAALGGTGGAATATATATAGAACTTTGGTTCATTGATTGGAAA 1516</pre>	Qy 477 ProGlnGlyGlnIeLeuLysGly***AspalaLysValSerMetGluGluArgalaGly 496	Qy 497 LeuThrValProArgAlaHisSerLeuValCysValProLeu 510 ::: :: Db 1562 TTAGCTTTGCAGAAAGCTGTCCCTCTT 1588	RESULT 6 US-09-938-842A-1997 ; Sequence 1997, Application US/09938842A : Darent No HCDADANEONS	GENERAL INFORMATION: APPLICANT: Harper, Jeff APPLICANT: Kreps, Joel	APPLICANT: AND TONE TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSCENIC PLANTS CONTAINING TITLE OF INVENTION: SAME, AND METHODS OF USE TITLE OF INVENTION: SAME, AND METHODS OF USE	CURRENT APPLICATION NUMBER: 0S/09/938,842A CURRENT FILING DATE: 2001-08-24 FROR APPLICATION NUMBER: US 60/227,866 FRICH PATER DATE: 2007-08-24	PRIOR APPLICATION NUMBER: US 60/264,647 PRIOR PILING DATE: 2001-01-16 PRIOR APPLICATION NUMBER: US 60/300,111	KTAIN FILING DAILE: 2001-00-22 NUMBER OF SEQ ID NOS: 5379 SEQ ID NO 1997 LENGTH: 1575 MARCH ON 1975 MARCH ON 1975	: TIFE: DNA : ORGANISM: Arabidopsis thaliana US-09-938-842A-1997	Alignment Scores: 3.32e-74 Length: 1575 Pred. No.: 574.00 Matches: 149 Percent Similarity: 47.41% Conservative: 89 Best Local Similarity: 29.68% Mismatches: 222	23.96% Indels:

OV 46 G]VH;s***HisTimilisAsolvs[anHisTurala***Thanhishim 65	11	66 LysHisGlyProLeuPheSer*****PheGlySerMetProThrValValAlaSerThr 85	DD 269 CAATATGGTGGGGTCTTTTCATATGGGGTACTTGGGTAGTGGTCACTGTTTCATCT 328 Qy 86 ProgluLeuPheLysLeuPheLeuGln*****GlualaThrSerPhe***ThrArgPhe 105	329 CCTGRARAGGCCGCCAAGTTCTGCAGGTCCAGGACAACATTTCTCCAACAGACCA 38	VY 100 GINTHISEFALATORY FLORANCE LANGUAR AND ANALYSE LANGUAR L	Qy 125 GlyProTyrTrp***PheValArgLySLeuIleMetAsnAspLeuLeuAsnAlaThrThr 144	Db 446 GGTCCTTTCTGGGGACAGATGCGTAAGCTCTGCGGTCATGAAGCTTTTTAGCCGGAAA 502 Oy 145 Valasn***LeuArdProLeuArdThrGlnGlnGlnTleArglvs***LeuArd***MetAla 164		Oy 165 Gln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeuLysTrp 182 :::: - -	183 ***AsnSerThr***SerMetMet***LeuGlyGluAlaGluGluIleArgAsp 20		201IleAlaArgGluValLeuLySIle**GlyGluTyrSerLeuThrAspPhelle 21	. Db 671 AICAAGATITIGCAGGAGTICTCTAAGCTITTTGGAGCATICAACAIGTCTGATTICAIT 730	731 CCCTGGCTGGATTGACCCCCAAGGGCTCAGGGCTAGACTTGTCAAGGCTCGCAAG	Qy 239 LysPheAspProValValGluArgValIleLysLysArgArg***IleValArgArg 258 1	Qy 259 ***AsnGlyGlu*****GluGlyGlu***SerGlyVal***LeuAspThrLeuLeuGlu 278	Qy 279 Phe	Oy 289 IleThrLys*****IleLysGlyLeuValValAsp***PheSerAlaGly***AspSer 308 :::	Oy 309 Thrala*****ThrGluTrpalaLeuAlaGluLeuIleAsnAsnPro***ValLeu*** 328	Qy 329 ***AlaArgGluGlu***TyrSerValValGlyLysAsp***LeuValAspGluValAsp 348 1079 AGAGTCGGCAGAGAGTCGCAGAGAGTGGTTTAGAGCGGCGCGCGTGGAGGAAGTGAT 1138	349 ThrGinAsnLeuProTyrIleArgAlalleValLysGluThrPheArgMetHisProPro 368	ATTGACAAACTTAGGTTCTTGAAATGCGCCCTCAAAGAAAACCTTAAGGATGCACCACCA 11	<pre>Qy 369 LeuProvalValLysargLysCys***GluGluCys***IleAsnGly***Val***Pro 388</pre>
Db 1111 CCTFACCTSCAAGGGGTFATGAAAGAGAGCTTTAGGCTTTCACCTAGGTTCTTTT 1170	GlyAla 391	CTAAAGACTCC	Т	Oy 412 Glu***ArgProGluArgPheLeuGluThr***AlaGluGlyGluAla******LeuAsp 431	432 LeuArgGly***HisPheGlnLeuLeuProPheGlySerGlyArg***MetCysProGly 4	Db 1330 TTCAAFGGAGGTGATTTTAAGTACTTGCCTTTTGGGFCAGGAGGAGGATTGTGCGGCG 1389	Oy 452 Val***LeualaThrSerGly***AlaThrLeuLeuAlaSerLeuIleGlnCysPheAsp 471 ::: :::	LeuGlnValLeuGlyProGlnGlyGlnIleLeuLysGly***AspAlaLysValSerMet	AG!		Oy 512 Argile 513	Db 1543 AGGTTG 1548	xasour (18-09-947-027-3 ; Sequence 3, Application US/09947027	; Patent No. US20020124281A1 ; GENERAL INFORMATION:	APPLICANT: CHIGHEN TAIGHT LEE C. TITLE OF INVENTION: METHODS FOR SIMULTANEOUS CONTROL OF LIGHIN CONTENT AND COMPOSITIC TITLE OF INVENTION: CELLULOSE CONTENT IN PLANTS TITLE OF INVENTION: CELLULOSE CONTENT IN PLANTS TITLE PERPENDENCE. OF CALLULOSE CONTENT IN PLANTS	CURRENT APPLICATION NUMBER: US/09/947,027 CURRENT FILING DATE: 2001-09-05 PRICA APPLICATION NUMBER: 60/230,086	; NUMBER OF SEQ ID NOS: 14 ; SOFTWARE: Patentin version 3.0 ; SEQ ID NO 3.		; NAME, KEI: MISC_Ieature ; OTHER INFORMATION: CAldSH US-09-947-027-3	Alignment Scores: 2.57e-73 Length: 1764 Score: 568.50 Matches: 146 Percent Similarity: 46.14% Conservative: 87	: 28.91% Mismatches: 23.73% Indels: 10 Gaps:	(1-1764)	Qy 26 SerLysalaLeuArgHisLeuProAsnProProSerPro***ProArgLeuProPhelle 45

66 LysHisGlyProLeuPheSer*****PheGlySerMetProThrvalValalaSerThr 85 :::::	446	ACCATGAACATCACAGAGCAGCTTTCGGGCTAAAAATGAAGGACAGATGAGTTC	239 LysPheAspProValValGluArgValIleLysLysArgArg***IleValArgArg 258 11	289 IleThrLys*****IleLysGlyLeuValValAsp***PheSerAlaGly***AspSer 308 ::: ::::: 559 CTTACTAAAGACAACATCAAAGCATAATCATGAATGTATGT	1079 AGAGTCCAGAGAGGTGGTGTTTTAGAGCGGCGGGAGGAAGTGAT 1138 349 ThrolnasnLeuProTyrileargalailevallysGluThrPheargMetHisProPro 368 1139 ATTGACAAACTTGTGTAATGCGCCCTCAAAGAACCTTAAGGATGCACCCACC	9 GluGlyAlaLeu******PheAsnValTrpGlnValGly***Asp***LysTyrTrpAsp 40 :::
	9 6 6 6			ò q ò q ò	90 OV .	0 PP
0y 389 GluGlyAlaLeu*****PheAsnValTrpClnValGly***Asp***LysTyrTrpAsp 408 3::::::::::::::::::::::::::::::::::::	1469 1481 1523 509	Db 1583 CCGAGCAAGCGTGTG 1597 RESULT 8 US-10-091-009-3 ; Sequence 3, Application US/10091009 ; Patent No. US20020138870A1 ; GENERAL INFORMATION: ; APPLICANT: Chiang, Vincent Lee C. ; APPLICANT: Li, Laigengengengengengengengengengengengengeng	TITLE OF INVENTION: COMPOSITION, AND TITLE OF INVENTION: CELLULOSE CONTENT IN PLANTS FILE REFERENCE: 066040-9718 CURRENT APPLICATION NUMBER: 02/10/091,009 PRIOR FILING DATE: 2002-03-06 PRIOR APPLICATION NUMBER: 09/947,027 PRIOR FILING DATE: 2000-09-05 PRIOR FILING DATE: 2000-09-05 PRIOR FILING DATE: 2000-09-05 NUMBER 05 SEQ ID NOS: 14 SOFTWARE: PATCHIN VERSION 3.0 SECTION 13.4	<pre>ppulus tremuloides tture CAld5H 2.57e-73 Length: Asta so</pre>	Dercent Similarity: 46.14% Conservative: 140 Dercent Similarity: 28.91% Mismatches: 231 Query Match: 23.73% Indexs: 41 DB: 12 10.091-0091-009-3 (1-1764)	Oy 26 SerLysAlaLeuArgHisLeuProAsnProProSerPro***ProArgLeuProPheile 45

ΟŸ	409 ArgProSerGlu***ArgProGluArgPheLeuGluThr***AlaGluGlyGluAla*** 428	Qy	63 LeuSerLysLysHisGlyProLeuPheSer*****PheGlySerMetProThrValVal 82
qq	1319 GAICCTGAIGCITTIAAGCCTICAAGGTTTTTGAAACCAGGGGGTGCCT 1366	qa	199 TTAGCTAAAAGTATGGCGGATTGTGCCATCTCCGCATGGGATTCCTCCATATGTACGCT 258
Qy Db	429 ***LeuaspLeuargGly***HisPheGlnLeuLeuProPheGlySerGlyarg***Met 448 ::: :::: :::	λ _o qq	83 AlaserThrProGluLeuPheLysLeuPheLeuGln*****GluAlaThrSerPhe*** 102
Qy	449 CysprodlyVal***LeuAlaThrSerGly***AlaThrLeuLeuAlaSerLeuIleGln 468	QY	103 ThrargPheGinThrSerAla***Arg***LeuThrTyrAsp*****ValAla*** 121
5 A2 B	CysPheAspLeuGlnValLeuGlyProGlnGlyGlnIleLeuLysGly***AspAlaLys	, Qy	***Pro***GlyProTyTTrp***PheValArgLySLeulleMetAsnAspLeuLeuAsn 14 :: CTCACTACGGACCGTTTTGGACACAGATGAGAAGTGTGTGT
oy Ob	ValSerMetGluGluArgAlaGlyLeuThrValProArgAlaHisSerLeuValCysVal 5 :::	Qy	
Qy Db	SO9 ProLeuAlaArgile 513 	Qy Db	162 ***MetalaGln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeuLys 181 :::::
RESULT US-09-9	9-938-842A-1506 uence 1506, Application US/09938842A	QY	182 Trp***AsnSerThr***SerMetMet***LeuGlyGluAlaGlu 196 ::: :: :: ::: ::: ::: ::: ::: ::: :::
GENEI GENEI APPI APPI	GENERAL INFORMATION: APPLICANT: Harper, Jeff APPLICANT: Kreps, Joel	do .	197 GluileargaspilealaarggluvalLeuLysile***GlygluTyrSerLeuThrasp 216
APPI	JICANT: Zhu, Tong JE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING JE OF INVENTION: SAME, AND METHODS OF USE	, dq	217 Pheile***ProLeuLys***LeuLysValGlyLysTyrGluLysArgileAspAspile 236
COR	REFERENCE: SCRIP1300-3 FORT APPLICATION UMBER: US/09/938,842A RENT FILING DATE: 2001-08-24 R APPLICATION UMBER: US 60/227,866	. 40	237 LeudsnLysPheAspProValValGluArgValIleLysLysArgArg***IleValArg 256 11
PRIC	JR FILING DATE: 2000-08-24 PRINCATION NUMBER: US 60/264,647 R APPLICATION NUMBER: US 60/300,111	. Oy	257 Argarg***AsnGlyGlu******GluGlyGlu***SerGlyVal***LeuAspThr 275 :::
NOMI SEO	NR FILING DATE: 2001-06-22 NR OF SEQ ID NOS: 5379 D NO 1506 GTH: 1563	O _Y	276 LeuleuGluPhealaGluAspGluThr
; TYB ; ORC US-09-9	TYPE: DNA ORGANISM: Arabidopsis thaliana -09-938-842a-1506	Qy Db	286 GlulleLysIleThrLys*****IleLysGlyLeuValValAsp***PheSerAlaGly 305
Alignment S Pred. No.: Score: Percent Sim	cores: 1.17e-72 Length: 563.50 Matches: illarity: 45.45% Conservati	Qy	306 ***ASpSerThrala******ThrGluTrpAlaLeuAlaGluLeuIleAsnAsnPro*** 325 :::::
Best Local S Query Match: DB:	: 27.65% Mismatches: 23.52% Indels: 9 Gaps:	Qy	326 Valleu*****AlaArgGluGlu***TyrSerValValGlyLysAsp***LeuValAsp 345 1 1 1 1 1 1 1 1 1
US-09-8 Qy	57-58	γς dg	346 GluvalaspThrGlnAsnLeuProTyrIleArgAlaIleValLysGluThrPheArgMet 365
oy oy	CTTGTCATCGTTGTTCTTTTCATCTTCATCAGCTTCATCACACGGCGGCGAAGGCCT ***Ala***SerLysAlaLeuArgHisLeuProAsnProProSerPro***ProArgLeu	Qy Db	<pre>36 HisProProLeuProValValLysArgLysCys***GluGluCys***IleAsnGly*** 385 </pre>
gg		QY	386 Val***ProGluGlyAlaLeu******PheAsnValTrpGlnValGly***Asp***Lys 405
Qy Db	43 PIOPNETICELYHIS***HISLGELLYSASPLYSLEELLEHISTYTÄLä***ILASASP 52	qa	TTCATTCCCAAGAATCTCGTGTGATGATCAACGCGTTTGCCATAGGACGCGACC
	_	Οy	406 TyrTrpAspArgProSerGlu***ArgProGluArgPheLeuGluThr***AlaGluGly 425

131 ValArgLysLeulleMetAsnAspLeuLeuAsnAlaThrThrValAsn***LeuArgPro 150 :::	TICCTGCCGTTTCTCAAGTGCTTGAGGGTTTCATAGCTGCTATGAAAAAACTG 75 LeuAsnLysPheaspProvalvalGluArgvalIleLysLysArgArg***IleValArg 25 LeuAsnLysPheaspProvalvalGluArgvalIleLysLysArgArg***IleValArg 25 LeuGagarg***AsnGlyGlu*******GluGlyGlu***SerGlyVal***LeuAspThrLeu 27 ArgArg***AsnGlyGlu*******GluIleLysIleThrLys****IleLysGly 29 LeuGluPheAlaGluAspGluThr***CluIleLysIleThrLys*****IleLysGly 29 :::1 ATCTCTGCAACAGCAACCATGAATTCAGTCCGATAGTAAGTGAAATTCTC 85 LeuValValAsp***PheSerAlaGly***AspSerThrAla*****ThrGluTrpAla 31 ACCGCGTTACAATGCTGAAGTGAATGAATGCTGGAAGGC 91 LeuValagluAsp***PheSerAlaGly****AspSerThrAla******ThrGluTrpAla 31 ACCGCCTTACAATGCTGAAGTGAAGATACATCCTGGGGGAAGCTGAATGGGCA 33 LeuvalaGluLeuIleAsnAsnPro************************************	ValvalGiyuysAsp**LeuvalAspGluvalAspThrGinAsnLeuvroTyrIleArg 356 CATATGGGACCGCGATTACTAGACGAGCGAGCGGAGCGG
1261 TCTTGGACTGACCGTTTAGACCATCGAGGTTTTTGGACCGGCGTACCG1317 426 Gluala*****LeuAspLeuArgGly***HisPheGlnLeuLeuProPheGlySerGly 445 1318	Db 1525 TTCGCCGTGCCACCCGCCTC 1548 RESULT 10 US-10-142-231-55 Sequence 55, Application US/10142231 Publication No. US2003007796A1 Selemence 55, Application US/10142231 Publication No. US2003007796A1 GENERAL INFORMATION: APPLICAMT: Corteau, Rodney et al., TITLE OF INVENTION: CYTOCHROME P450 OXYGENASES AND THEIR USES FILE REFERENCE: 62773 CURRENT APPLICATION NUMBER: US/10/142/231 CURRENT FILING DATE: 1999-11-12 NUMBER OF SEQ ID NOS: 95 SOFTWARE: Patentin Ver: 2.1 SEQ ID NO 55 LENGTH: 1545 SEQ ID NO 55 LENGTH: 1545 TYPE: DNA ORGANISM: Taxus cuspidata US-10-142-231-55	Alignment Scores: 1.36e-72 Matches: 140 Bred. No.: 563.00 Matches: 140 Socret: 47.99\$ Mismatches: 211 Best Local Similarity: 47.99\$ Mismatches: 211 Gaps: 13.50\$ Gaps: 13.50\$ Gaps: 33.50\$ Gaps: 33.50\$

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QQ	oy Db	0	9.y	dy Qy	9	g ko	qa .	δδ G	φα ο	a do	da Qy	oy Oy	dd .	Qy	δλ
	Qy 496 GlyLeuThrValProArgAlaHisSerLeuValCysValProLeuAlaArgIle 513	RESULT 11 US-10-067-534-1 Sequence 1, Application US/10067534 Publication No. US20020187538A1 SENERAL INFORMATION: APPLICANT: Essenberg, Margaret K. APPLICANT: Chen, Xiao-Ya	APPLICANT: Luo, Ping APPLICANT: Mang, Yan-Hong TILE OF INVENTION: CDNA Clone of (+)-Delta-Cadinene-8-Hydroxylase Gene from Cotton FILE REFERENCE: 006602-113 CURRENT APPLICATION NUMBER: 05/10/067,534	CONTAIN FILLING DAILS 20.2.0.7.160) PRIOR PILLING DATE: 2010-02-07 ; NUMBER OF SEQ ID NOS: 19 ; SOFTWARE: FastSEQ for Windows Version 4.0	; SEQ ID NO 1 ; LENGTH: 1933 ; TYPE: DNA ; ORGANISM: Gossypium arboreum US-10-067-534-1	Alignment Scores: 1.92e-72 Length: 1933 Pred. No.: 563.00 Matches: 154 Score: Similarity: 45.72% Conservative: 92 Best Local Similarity: 28.62% Mismatches: 234	23.50% Indels: 9 Gaps: 21) x US-10-067-534-1 (1-1933)	Oy 1 MetLeuLeuGluLeuAlaLeuGlyLeu***ValLeuAlaLeuPhe***HisLeu 18	Qy 19ArgProThrPro**Ala***SerLysAlaLeuArgHisLeuPro 33:	34 AsnProProSerPro***ProArgLeuProPheIleGlyHis***HisLeuLeuLys	<pre>Qy 53 AspLysLeuLeuHisTyrAla***IleAspLeuSerLysLysHisGlyProLeuPheSer 72 . </pre>	367 CITTGGCTAGGAACAATTATGCGTAGTCATTAGCTGGGCACCACTGGGGAAGAAGAGGTG 42. 93 LeuGln******GlualaThrSerPhe***ThrargPheGlnThrSerAla***Arg*** 11.	DD 42/ GIIGGGGGGGGGGGGGGGGGGGGGGGGGGGTGCTGGGGGGTT 483 Qy 113 Leuthrtyrasp*****Valala****Pro**GlyProTyrTrp**Phe 130 DD 484 ATTACCTTTGGCCTCAATGATATTGATTCTTACAGTAGTCCAGATTGGAGAATG 543	Qy 131 ValargLysLeuIleMetAsnAspLeuLeuAsnAlaThrThrValAsn***LeuArgPro 150	LeuArgThrGlnGlnIleArgLys***LeuArg***MetAlaGln***AlaGluAla*** 17

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1323
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GENERAL INFORMATION:
APPLICANT: Harper, Joef
APPLICANT: Kreps, Joel
APPLICANT: Wing, Xun
APPLICANT: Wing, Xun
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSCENIC PLANTS CONTAINING
TITLE OF INVENTION: SAME, AND METHODS OF USE
TITLE OF INVENTION: SOURCE: SCRIP1300-3
CURRENT FILING DATE: 2001-08-24
CURRENT FILING DATE: 2001-08-24
FRIOR APPLICATION NUMBER: US 60/227,866
PRIOR APPLICATION NUMBER: US 60/224,647
PRIOR FILING DATE: 2001-01-16
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Patent No. US20020160378A1
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Query Match:
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Matches:
Conservative:
Mismatches:
Indels:
              PRIOR FILING DATE: 2000-08-24
PRIOR APPLICATION NUMBER: US 60/264,647
PRIOR FILING DATE: 2001-01-16
PRIOR APPLICATION NUMBER: US 60/300,111
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 8379
LENGTH: 1491
                                                                                                                                                                   ORGANISM: Arabidopsis thaliana
US-09-938-842A-2690
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553.00
50.20%
29.10%
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Best Local Similarity:
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Patent No. US20020160378a1
GENERAL INFORMATION:
APPLICANT: Harper, Jeff
APPLICANT: Kreps, Joel
APPLICANT: Kreps, Joel
APPLICANT: Zhu, Tong
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
TITLE OF INVENTION: SAME, AND METHODS OF USE
FILE REFERENCE: SCRIP1300-3
CURRENT APPLICATION NUMBER: US,09/9918, 842A
CURRENT FILING DATE: 2001-08-24
PRIOR APPLICATION NUMBER: US 60/227,866
Patent No. US20020110548A1
GENERAL INFORMATION:
APPLICANT: Byrum, Joseph R.
APPLICANT: Las Rosa, Thomas J.
APPLICANT: Thompson, Michael D.
TITLE OF INVENTION: Plants
FILE OF INVENTION: Plants
FILE REFERENCE: 38-21(15401)B
CURRENT APPLICATION NUMBER: US/09/878,574
PRIOR FILING DATE: 2001-12-21
PRIOR PAPLICATION NUMBER: 09/333,535
PRIOR FILING DATE: 1999-06-14
SEQ ID NOS: 15775
LENGTH: 397
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Matches:
Conservative:
Mismatches:
Indels:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-857-581-66 (1-521) x US-09-878-574-72 (1-397)
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AATCCAAACGITIGGAAAGAICCAGAAGCITICATICCGAGAGGITIAIGGAIAGC--- 1247
                                                                                                                                                                                                                                                                    ArgMetHisProProLeuPro---ValValLysArgLysCys***GluGluCys***Ile 382
                                                                                                                                 ***ValLeu*****AlaArgGluGlu***TyrSerValVal---GlyLysAsp***Leu 343
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                       894 GGAATAGACACTICIGCACAAGITAIGACAIGGGIGATGACATAITIGATITCAAACCCA
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---GluIleLysIleThrLys*****IleLysGlyLeuValValAsp***PheSerAla
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                                                                Gly***AspSerThrAla*****ThrGluTrpAlaLeuAlaGluLeuIleAsnAsnPro
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Dublication No. US20030077796A1

GENERAL INFORMATION:

APPLICANT: Croteau, Rodney et al.

TILLE OF INVENTION: CYTOCHROME P450 OXYGENASES AND THEIR USES

FILE REFERENCE: 62773

CURRENT FILING DATE: 2002-05-08

PRIOR PILING DATE: 1999-11-12

NUMBER OF SEQ ID NOS: 95

SOFTWARE: Patentin Ver: 2.1

SOFTWARE: Patentin Ver: 2.1
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NAME/KBY: misc_feature
LOCATION: (1)..(1539)
COTHER INFORMATION: "n" equals any US-10-142-231-53
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                                                                                                                                                                                                                           163 ATCGTGGGAAATCTCCACCAGTTG---GGAAAGCTTCCCAACCGTAATCTGGAAGAGCTC
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          Length:
Matches:
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Mismatches:
Indels:
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                                      Percent Similarity:
Best Local Similarity:
Query Match:
Alignment Scores:
Pred. No.:
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	335 TyrserV 1033 GAATCCC	355 Ilearga 1093 CTGCAAT 374 ArgLySC 1153 CACGAAT	394 ***Pher 1213 CTCGTTZ 414 ArgProc 11273 AAACCAA	434 Gly*** 1318 AAAGAGG 454 LeuAlan 1378 AIGGCCC 474 ValLeuC	

Search completed: June 1, 2003, 03:04:32 Job time: 258 secs

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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GENERAL INPORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
ITILE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REPERRNCE: BB1339 PCT
CURRENT APPLICATION UNDBER: US/09/887,581
CURRENT FILING DATE: 2001-06-05
                                                           February 26, 2004, 16:59:35; Search time 1 Seconds (without alignments) 5.031 Million cell updates/sec
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Sequence 34,
Sequence 36,
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Maximum Match 100%
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length: 2000000000
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Match
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US-09-657-581-26
; Sequence 26, Application US/09857581
; Sequence 26, Application US/09857581
; GENERAL INFORMATION:
    APPLICANT: E. I du Pont de Nemours and Company
    TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
; TILE REPERENCE: BB1339 PCT:
    CURRENT PILING DATE: 201-06-05
; PRIOR APPLICATION NUMBER: 60/117,769
; PRIOR APPLICATION NUMBER: 60/117,769
; PRIOR FILING DATE: 1999-01-27
; PRIOR FILING DATE: 1999-01-27
; PRIOR FILING DATE: 1999-07-20
; PRIOR FILING DATE: 1999-07-20
; PRIOR FILING DATE: 1999-09-24
; NUMBER OF SEQ ID NOS: 66
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 26
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100.0%; Score 2396;
Best Local Similarity 87.1%; Pred. No. 0;
Matches 454; Conservative 67; Mismatches
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFWMARE: Microsoft Office 97
LENGTH: 521
                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Glycine max
US-09-857-581-2
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| Sequence 30, Application US/09857581
| Sequence 30, Application US/09857581
| GENERAL INFORMATION:
| APPLICANT: E. I. du Pont de Nemours and Company
| TITLE OF INFORMION Nucleic Acid Sequences Encoding Isoflavone Synthase
| TITLE PEPERENCE: BB1339 PCT
| CURRENT PELICATION NUMBER: US/09/857,581
| CURRENT PELICATION NUMBER: G0/117,769
| PRIOR APPLICATION NUMBER: G0/117,769
| PRIOR APPLICATION NUMBER: G0/14,783
| PRIOR PILING DATE: 1999-00-20
| PRIOR PILING DATE: 1999-09-24
| NUMBER OF SEQ ID NOS: 66
| SOFTWARE: Microsoft Office 97
| SEQ ID NO 30
| LINGTH: 521
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                                                                       61 IDLSKKAGPLFSLYFGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVA 120
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                MLLELALGLXVLALFXHLRPTPXAXSKALRHLPNPPSPXPRLPF1GHXHLLKDKLLHYAX
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67; Mismatches
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Best Local Similarity 87.1%;
Matches 454; Conservative 67
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US-09-857-581-30
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US-09-857-581-30
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GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB133 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 1999-01-06-05
PRIOR PELICATION NUMBER: 60/117,769
PRIOR PELICATION NUMBER: 60/117,769
PRIOR PELICATION NUMBER: 60/117,769
PRIOR PELING DATE: 1999-07-27
PRIOR PELING DATE: 1999-07-27
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-24
NUMBER OF SEQ ID NOS: 66
SOUTHWARE: Microsoft Office 97
SEC ID NO 28
LENGTH: 521
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67; Mismatches
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Matches 454; Conservative 6
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Best Local Similarity 87.1
Matches 454; Conservative
                                 ), ORGANISM: Phaseolus aureus
US-09-857-581-26
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Sequence 34, Application US/09857581

Sequence 34, Application US/09857581

GENERAL INFORMATION:

APPLICANT: E. I. dw Font de Nemours and Company

ITILE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase

FILE REFERENCE: BB13.9 PCT

CURRENT APPLICATION NUMBER: US/09/857,581

CURRENT FILING DATE: 2001-06-05

PRIOR APPLICATION NUMBER: 60/144,783

PRIOR APPLICATION NUMBER: 60/144,783

PRIOR FILING DATE: 1999-07-20

PRIOR FILING DATE: 1999-07-20

PRIOR FILING DATE: 1999-07-24

NUMBER OF SEQ ID NOS: 66

SOFTWARE: Microsoft Office 97

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                                     XFSAGXDSTAXXTEWALAELINNPXVLXXAREEXYSVVGKDXLVDEVDTQNLPYIRAIVK
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Best Local Similarity 87.1%; I
Matches 454; Conservative 67,
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; ORGANISM: Trifolium pratense
US-09-857-581-34
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GENERAL INFORMATION:

APPLICANT: E. I. du Pont de Nemours and Company

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase

FILE REFERENCE: BB133 PCT

CURRENT APPLICATION NUMBER: US/09/857,581

CURRENT PAPLICATION NUMBER: 60/117,769

PRIOR APPLICATION NUMBER: 60/117,769

PRIOR APPLICATION NUMBER: 60/117,769

PRIOR APPLICATION NUMBER: 60/14,783

PRIOR PILING DATE: 1999-01-27

PRIOR APPLICATION NUMBER: 60/144,783

PRIOR PILING DATE: 1999-02-24

NUMBER OF SEQ ID NOS: 66

SOFTWARE: Microsoft Office 97

SEQ ID NO 32

LENDETH: 521
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Best Local Similarity 87.1%; Pred. No. 0;
Matches 454; Conservative 67; Mismatches
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; ORGANISM: Trifolium pratense
US-09-857-581-32
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TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REPERENCE: BB1339 PCT.
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-09-24
PRIOR PILING DATE: 1999-09-24
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100.0%; Score 2396;
Best Local Similarity 87.1%; Pred. No. 0;
Matches 454; Conservative 67; Mismatches
                                                                                                                                                                                   Sequence 36, Application US/09857581 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT ORGANISM: Pisum sativum
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US-09-857-581-36
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                                   GENERAL INVERTION:

JAPLICANT: E. I. du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthage
FILE REFERENCE: BEIS39 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PLILING DATE: 1999-01-27
PRIOR PLILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-07-20
PRIOR PLILING DATE: 1999-02-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
IENGTH: 522
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GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
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67; Mismatches
Application US/09857581
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Best Local Similarity 87.1%; I
Matches 454; Conservative 67;
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    Sequence 24, Applica GENERAL INFORMATION:
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86.8%; Pred. No. v,
66; Mismatches
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86.8%; Pred. No. 0;
ive 66; Mismatches
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Best Local Similarity 86.8
Matchés 433; Conservative
                                                                                                                                  Best Local Similarity 86.8
Matches 433, Conservative
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US-09-857-581-20
                                      TYPE: PRT CORGANISM: Vicia villosa US-09-857-581-18
    SEQ ID NO 18
LENGTH: 499
                                                                                                                  Query Match
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GENERAL INFORMATION:
APPLICAMY: But Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 1999-01-6-6,5
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR PILING DATE: 1999-07-20
PRIOR PILING DATE: 1999-09-24
NUMBER: OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
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86.8%; Pred. No. 0;
ive 66; Mismatches
CURRENT FILING DATE: 2001-06-05
PRIOR PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-20
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR PILING DATE: 1999-09-24
NUMBER: OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 16
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                                                                                                                                                                                                            TYPE: PRT CRGANISM: Medicago sativa US-09-857-581-16
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US-09-857-581-18
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HAPLICANT: B. I. du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REPERENCE: BB1339 PCT
GURRENT APPLICATION NUMBER: US/09/857,581
CURRENT PILING DATE: 2010-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR PILING DATE: 1999-01-20
PRIOR PILING DATE: 1999-01-20
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR PILING DATE: 1999-02-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 20
LENGTH: 499
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IMNDLLNATIVNXLRPLRIQQIRKXLRXMAQXABAXKPLDXTBELLKWXNSTXSMMXLGE
                                                                          181 AEEIRDIAREVLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDILNKFDPVVERVIKKRREI
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                                                         ABBIRDIAREVLKIXGEYSLTDF1XPLKKLKVGKYEKRIDDILNKFDPVVERV1KKRRXI
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96.2%; Score 2304; DB 1; Length 499;

Best Local Similarity 86.8%; Pred. No. 0;

Matches 433; Conservative 66; Mismatches 0; Indels
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US-09-857-581-40
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Sequence 22, Application US/09857581

GENERAL INFORMATION:

APPLICANT: E. 1. du Pont de Nemours and Company

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase

CURRENT FILING DATE: 2001-06-05

PRIOR PELICATION NUMBER: 60/117,769

PRIOR PELING DATE: 1999-01-27

PRIOR APPLICATION NUMBER: 60/114,783

PRIOR PILING DATE: 1999-01-20

PRIOR FILING DATE: 1999-09-24

NUMBER OF SEQ ID NOS: 66

SOFTWARE: Macrosoft Office 97

SEQ ID NO 22
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                                  FLHLRPTPTAKSKALRHLPNPPSPKPRLPFIGHPHLLKDKLLHYALIDLSKKHGPLFSLY
                                                                                          61 FGSMPTVVASTPELFKLFLQTHBATSFNTRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKL
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                   FXHLRPTPXAXSKALRHLPNPPSPXPRLPFIGHXHLLKDKLLHYAXIDLSKKHGPLFSXX
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Best Local Similarity 86.8%; Pred. No. 0;
Matches 433; Conservative 66; Mismatches 0;
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Sequence 55, Application US/09857581
GENERAL INFORMATION:
APPLICANT: E. I. dw Wonld de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-07-20
PRIOR PILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-24
NUMBER OF SEQ ID NOS: 66
SCOTWARR: Microsoft Office 97
SEQ ID NO 55
LENGTH: 499
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                                                          61 FGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVARVPFGPYWKFVRKL
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Best Local Similarity 86.8%; Pred. No. 0;
Matches 433; Conservative 66; Mismatches
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US-09-857-581-55
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US-09-857-581-55
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US-09-857-581-48
Sequence 48, Application US/09857581
Sequence 48, Application US/09857581
GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
TITLE OF INVENTION NUCLEIC Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB139 PCT
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/114,783
PRIOR APPLICATION NUMBER: 60/114,783
PRIOR PILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 48
LEGGTH: 499
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KCXEECXINGXVXPEGALXXFNVWQVGXDXKYWDRPSEXRPERFLETXAEGEAXXLDLRG 434
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86.8%; Pred. No. 0;
ive 66; Mismatches
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Best Local Similarity 86.8
Matches 433; Conservative
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CORGANISM: Beta vulgaris
US-09-857-581-48
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US-05-55.
US-05-57, Application US/09857581
Sequence 57, Application US/09857581
GENERAL INFORMATION:
APPLICANT: B. I. dw Pont de Nemours and Company
APPLICANT: B. I. dw Pont de Nemours and Company
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/114,783
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-07-20
PRIOR PILING DATE: 1999-07-20
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PRIOR FILING DATE: 1999-07-20
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86.8%; Pred. No. 0;
iive 66; Mismatches 0; Indels
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US-09-857-581-59
; Sequence 59, Application US/09857581
; GENERAL INFORMATION:
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Best Local Similarity 86.8
Matches 433; Conservative
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; ORGANISM: Medicago sativa
US-09-857-581-57
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APPLICANT: B. I. du Pont de Nemours and Company TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase FILE REFERENCE: BB1339 PCT

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Sequence 38, Application US/09857581
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT APPLICATION NUMBER: 60/117,769
FRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-02-24
PRIOR FILING DATE: 1999-02-24
NUMBER OF SEQ ID NOS: 66
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96.2%; Score 2304; D
Best Local Similarity 86.8%; Pred. No. 0;
Matches 433; Conservative 66; Mismatches
CURRENT APPLICATION NUMBER: US/09/657,581
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-02-01
PRIOR FILING DATE: 1999-09-04
PRIOR FILING DATE: 1999-09-04
NUMBER OF SEQ ID NOS: 66
SOSTWARE: MICROSOFT Office 97
SEQ ID NO 59
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US-09-857-581-59
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US-09-857-581-38
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TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION: NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-20
PRIOR FILING DATE: 1999-01-20
PRIOR PELICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-20
PRIOR PELICATION NUMBER: 60/156,094
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: MICROSOFT Office 97
                                                                                                                                                                                                                                                                                  SHLRPTPSAISKALRHLPNPPSPRPRLPFIGHLHLLKDKLLHYAPIDLSKKHGPLFSLSF
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Pred. No. 0;
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86.7%; Pred. No. 0;
iive 66; Mismatches 0;
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US-09-857-581-61
Sequence 61, Application US/09857581
GENERAL INFORMATION:
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SOFTWARE: Microsoft Office 97
SEQ ID NO 38
LENGTH: 498
                                           TYPE: PRT; ORGANISM: Trifolium repens
US-09-857-581-38
                                                                                                                              Conservative
                                                                                                               Similarity
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; TYPE: PRT
; ORGANISM: BEC
US-09-857-581-61
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Best Local Simi
Matches 432;
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                                          16 XHLRPTPXAXSKALRHLPNPPSPXPRLPFIGHXHLLKDKLLHYAXIDLSKKHGPLFSXXF
Gaps
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1; Indels
    66; Mismatches
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    431; Conservative
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completed: February 26, 2004, 16:59:38 e : 3 secs

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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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- protein search, using sw model

OM protein

е : Run

March 1, 2004, 07:06:46; Search time 1 Seconds (without alignments) 5.031 Million cell updates/sec

af135484pep 2679 1 MILELALGLIVLALFLHIRP.....AHSIVCVPLARIGVASKILS 521 Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

19 seqs, 9656 residues Searched:

Total number of hits satisfying chosen parameters:

5

seq length: 0 seq length: 200000000 Minimum DB Maximum DB

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

ramirez581.pep:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Sequence 26, Appl	Sequence 24, Appl		30,	34,	32,	Sequence 2, Appli	~	59,	22,	48,	18,	55,		40,	61,		16,	Sequence 38, Appl
		US-09-857-581-26	US-09-857-581-24	US-09-857-581-28	US-09-857-581-30	US-09-857-581-34	US-09-857-581-32	US-09-857-581-2	US-09-857-581-36	US-09-857-581-59	US-09-857-581-22	US-09-857-581-48	US-09-857-581-18	US-09-857-581-55	US-09-857-581-57	US-09-857-581-40	US-09-857-581-61	US-09-857-581-20	US-09-857-581-16	US-09-857-581-38
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ALIGNMENTS

Sequence 24, Application US/09857581

Sequence 24, Application US/09857581

GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
SEQ ID NOS: 66
SEQ ID NO 24

US-09-857-581-24

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Sequence 26, Application US/0985781
GENERAL INFORMATION:
GENERAL II. UN POINT & New York and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
TITLE DEFINYENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
RESULT 1
US-09-857-581-26
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Pred. No. 0;
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFWWARE: Microsoft Office 97
LENGTH: 521
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Best Local Similarity 99.6%;
Matches 519; Conservative
                                                                                                                                                                                                     TYPE: PRT ORGANISM: Phaseolus aureus
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Sequence 28, Application US/09857581

SEQUENCE 28, Application US/09857581

SEQUENCE 28, Application US/09857581

SERICAMY: E. I. dw Pont de Nemours and Company

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase

FILE REFERENCE: BB133 PCT

CURRENT APPLICATION NUMBER: US/05 SP7 S81

CURRENT FILING DATE: 1999-01-27

PRIOR FILING DATE: 1999-01-27

PRIOR FILING DATE: 1999-07-20

PRIOR FILING DATE: 1999-09-24

NUMBER OF SEQ ID NOS: 66

SOFTWARE: MICROSOFT Office 97

SEQ ID NO 28

LENGTH: 521
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Pred. No. 0;
0; Mismatches 2;
                                                                      Score 2667; DB Pred. No. 0; 0; Mismatches
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; LENGTH: 522
; TYPE: PRT
; ORGANISM: Phaseolus aureus
US-09-857-581-24
                                                                      Query Match
Best Local Similarity 99.6
Matches 519; Conservative
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Matches 519; Conserv
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US-09-857-581-28
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APPLICANT: an Uncountain and Company
APPLICANT: du Pont de Nemours and Company
TITLE OF INVENITON: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB133 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001.06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR PILING DATE: 1999-07-20
PRIOR APPLICATION NUMBER: 60/166,094
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 30
LENGTH: 521
TYPE: PRI
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MLLELALGLLVLALFLHLRPTPTAKSKALRHLPNPPSPKPRLPFIGHLHLLKDKLLHYAL
                                                                                                        61 IDLSKKHGPLFSLYFGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVA
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Pred. No. 0;
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Best Local Similarity 99.6%;
Matches 519; Conservative
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Db 241 DPVVERVIKKEREIVERKKNGEVVEGEVSCVFLDTLLEFAEDETTEIKITKDHIKGLVVD 300 Qy 301 FFSAGTDSTAVATEWALAELINDFVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360	RESULT 6 US-09-857-581-32 Sequence 32, Application US/09857581 Sequence 32, Application US/09857581 SEQUENCE 32, Application Sequence and Company TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase FILE REFERENCE: BB1339 PCT FILE REFERENCE: BB1339 PCT CURRENT APPLICATION NUMBER: US/09/857,581	CORRENT FILING DATE: 2001-05 PRIOR APPLICATION NUMBER: 60/117,769 PRIOR FILING DATE: 1999-01-27 PRIOR FILING DATE: 1999-01-27 PRIOR PRIOR DATE: 1999-0-24 PRIOR FILING DATE: 1999-09-24 PRIOR FILING DATE: 1999-09-24 NUMBER: O'S SEQ ID NOS: 66 SOFTWARE: Microsoft Office 97 SEQ ID NO 32 LENGTH: 521 TYPE: PRI CORGANISM: Trifolium pratense US-09-857-581-32		Oy 61 IDLSKKHOPLFSLYFGSNPTVNASTPBLFKLFLQTHEATSFNTRFQTSA.RRLTYDSSVA 120	Qy 181 KWTNSTISWAMLGBABEIRDIAREVLKIFGEYSLIDFIWPLKHLKVGKYEKRIDDILNKF 240 Db 181 KWTNSTISWAMLGBABEIRDIAREVLKIFGEYSLIDFIWPLKHLKVGKYEKRIDDILNKF 240 Qy 241 DPVVERVIKKRREIVRRRKNGEVVEGEVGGVFLDTLEFABDETMBIKITKDHIKGLVVD 300 Db 241 DPVVERVIKKRREINFRENGEVVEGEVGGVFLDTLEFABDETMBIKITKDHIKGLVVD 300	301 FFSACTDSTAVATEWALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTONLPYIRAIVK
Db 121 MVPFGPYWRFURKLIMNDLLNATTVNKLRPLRTQQIRKFLRVWAQGAEAQKPLDLTEELL 180 Qy 181 KWTNSTISMMALGEAEEIRDIARBYLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDILNKF 240 181 KWTNSTISMMALGEAEEIRDIARBYLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDILNKF 240 Qy 241 DPVVBRYISMMALGEAEEIRDIARBYLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDILNKF 240 Db 241 DPVVBRYIKKRREITRRRKNGEVVBGEYGYFLDTLLEFAEDETWEIKITKDHIKGLVVD 300	OY 421 TGAEGEAGPLDLRGQHFOLLPFGSGRRMCPGVNLATSGMATLLASLIQCFDLQVLGPQGG 480	RESULT 5 US-09-857-581-34 ; Sequence 34, Application US/09857581 ; GENERAL INPOMATION: ; APPLICANT: E. 1 du Pont de Nemours and Company ; TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase ; FILE REFERENCE: BB1339 PCT ; CURRENT APPLICATION NUMBER: US/09/857,581 ; CURRENT FILING DATE: 2001-06-05 ; PRIOR APPLICATION NUMBER: 60/117,769 ; PRIOR FILING DATE: 1999-01-27 ; PRIOR FILING DATE: 1999-07-20	PRIOR APPLICATION NUMBER: 60/156,094 PRIOR FILING DATE: 1999-09-24 NUMBER OF SEQ ID NOS: 66 SOFTWARE: Microsoft Office 97 SEQ ID NO 34 LENGTH: 52 TYPE: PRT ORGANISM: Trifolium pratense US-09-857-581-34	ery Match st Local cches 51	Db 1 MILELALGILVLALFIHLRPTPTAKSKALRHIPNPPSFKPRIPFIGHIHLKDKILHYAL 60 Qy 61 IDLSKKHGPLPSLYFGSMPTVVASTPELFKLPLQTHBATSFNTRFQTSAIRRLTYDSSVA 120 Db 61 IDLSKKHGPLPSLYFGSMPTVVASTPELFKLPLQTHBATSFNTRFQTSAIRRLTYDSSVA 120 Qy 121 MVPFGPYWKFVRKINNDLINATTVNKLRPLRTQQIRKFLRVMAQGABAQKPLDLTBELL 180	DD

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                                                                                                                                                                NESCO. Application US/0985781.

Sequence 2, Application US/0985781.

Sequence 2, Application US/0985781.

GENERAL INFORMATION:

APPLICANT: E. 1. du Pont de Nemours and Company

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase

FILE REFERENCE: Bala39 FCT

CURRENT APPLICATION NUMBER: 60/117,769

PRIOR APPLICATION NUMBER: 60/117,769

PRIOR APPLICATION NUMBER: 60/14,783

PRIOR APPLICATION NUMBER: 60/146,783

PRIOR APPLICATION NUMBER: 60/156,094

PRIOR FILING DATE: 1999-09-24

NUMBER OF SEQ ID NOS: 66
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Pred. No. 0;
8; Mismatches
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SEQ ID NO 2
LENGTH: 521
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US-09-857-581-2
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| APPLICANT: B. 1. du Pont de Nemours and Company | APPLICANT: B. 1. du Pont de Nemours and Company | TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase | FILE REFERENCE: BELLA 329 PCT | CURRENT APPLICATION NUMBER: US/09/857,581 | CURRENT PILING DATE: 2001-06-05 | PRIOR APPLICATION NUMBER: 06/117,769 | PRIOR PAPLICATION NUMBER: 60/117,769 | PRIOR PAPLICATION NUMBER: 60/144,783 | PRIOR PILING DATE: 1999-01-27 | PRIOR PLING DATE: 1999-01-27 | PRIOR PILING DATE: 1999-03-44 | PRIOR PILING DATE: 1999-03-44 | NUMBER OF SEQ ID NOS: 66 | SEC ID NOS: 66 | LENGTH: 521 | LENGTH: 521
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TITLE OF INVENTION: Uncleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
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5-09-857-581-36
Sequence 36, Application US/09857581
GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours
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Best Local Similarity 96.4
Matches 502; Conservative
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CRGANISM: Pisum sativum
US-09-857-581-36
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APPLICANT: B. I. du Pont de Nemours and Company
ITILE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE RERERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT PILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR PILING DATE: 1999-01-27
PRIOR PLILING DATE: 1999-01-27
PRIOR PLILING DATE: 1999-01-27
PRIOR PLILING DATE: 1999-01-27
PRIOR PLILING DATE: 1999-07-20
PRIOR PLILING DATE: 1999-07-26
PRIOR PLILING DATE: 1999-07-26
PRIOR PLING DATE: 1999-07-27
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95.3%; Score 2553; C
Best Local Similarity 99.2%; Pred. No. 0;
Matches 495; Conservative 0; Mismatches
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                                                                                                                                                   95.3%; Score 2554; 99.0%; Pred. No. 0;
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US-09-857-581-48
; Sequence 48, Application US/09857581
; GENERAL INFORMATION:
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Best Local Similarity 99.0
Matches 494; Conservative
                        LENGTH: 499
TYPE: PRT
ORGANISM: Lens culinaris
US-09-897-581-22
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US-09-857-581-48
  SEQ ID NO 22
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GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-26
PRIOR FILING DATE: 1999-01-26
PRIOR FILING DATE: 1999-01-26
SPRIOR FILING DATE: 1999-01-26
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
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99.2%; Pred. No. 0;
iive 1; Mismatches
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-20
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 59
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Best Local Similarity 99.2
Matches 495; Conservative
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US-09-857-581-59
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US-09-857-581-22
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Sequence 55, Application US/09857581
GENERAL INFORMATION:
APPLICANT E I. du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: 08/09/857,581
CURRENT APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 55
LENGTH: 499
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                                                                                                                                                                                                                                                                                                   WALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVKETFRMHPPLPVVKR 374
                                                                                                                                                                                                                               421 QHFQLLFFGSGRGMCPGVNLAISGMATLIASLIQCFDLQVLGPQGQILKGGDAKVSMEER
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IMNDLLNATIVNKLRPLRIQQIRKFLRVMAQGABAQKPLDLTBELLKWINSTISMMLGB
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                                                                                                  AEBIRDIAREVLKI FGEYSLTDFIWPLKHLKVGKYBKRIDDILNKFDPVVBRVIKKRREI
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Pred. No. 0;
1; Mismatches 5; Indels
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Best Local Similarity 98.8%;
Matches 493; Conservative
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US-09-857-581-55
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US-09-857-581-55
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US-UN-DB-1-20.1-10.
US-UN-DB-1-20.1-10.
US-UN-DB-1 INPORMATION:
MAPPLICANT: E. I. dw Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase;
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR PLING DATE: 1999-01-27
PRIOR PLING DATE: 1999-01-27
PRIOR PLING DATE: 1999-01-27
PRIOR FILING DATE: 1999-01-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NOS: 66
SOFTWARE: MICROSOFT Office 97
SEQ ID NOS: 66
SEQ ID NOS: 67
SEQ ID NOS
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Pred. No. 0;
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Best Local Similarity 98.8%;
Matches 493; Conservative
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US-09-857-581-18
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General 40, Application US/09857581
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT PILING DATE: 1999-01-05
PRIOR PLING DATE: 1999-01-27
PRIOR PLING DATE: 1999-07-20
PRIOR PLING DATE: 1999-07-20
PRIOR PILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
SPRIOR FILING DATE: 1999-07-20
NUMBER OF SEQ ID NOS: 66
SOFTHARE MICROSOFT Office 97
SEQ ID NO 40
LENGTH: 499
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US-09-857-581-40
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US-09-857-581-40
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GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
ITILE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: 05/117,769
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PLILNG DATE: 1999-01-27
PRIOR PLILNG DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-09-24
NUMBER: 05 SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 57
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                                                                                   301 WALAELINNPKVLERARBEVYSVVGKDRLVDEVDTQNLPYIRAIVKETFRWHPPLPVVKR 360
VRRRKNGEVVEGEVSGVLLDTILEFAEDETWEIKITKDHIKGLVVDFFSAGTDSTAVATE 300
                                                          374
                                                                                                                                     KCTEECEINGYVIPEGALILFNVWQVGRDPKYWDRPSEFRPERFLETGAEGEAGPLDLRG 434
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Pred. No. 0;
0; Mismatches
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Best Local Similarity 98.8%;
Matches 493; Conservative (
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US-09-857-581-57
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US-09-857-581-57
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CURRENT APPLICATION NUMBER: US/09/857,581
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                                                                Sequence 61, Application US/09857581

GENERAL INFORMATION:
APPLICAMY: E. I. dw Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase;
FILE REPERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/657,581
CURRENT PILING DATE: 2001-06-05
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 61
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98.2%; Pred. No. 0;
ive 2; Mismatches
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Best Local Similarity 98.2
Matches 489; Conservative
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, ORGANISM: Beta vulgaris
US-09-857-581-61
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APPLICANT: E. I. du Pont de Nemours and Company TITLE OF INNENTION: Norleic Acid Sequences Encoding Isoflavone Synthase FILE REFERENCE: BB1339 PCT

US-09-857-581-20; Sequence 20, Application US/09857581; GENERAL INFORMATION:

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Sequence 16, Application US/09857881

GENERAL INFORMATION:

GENERAL INFORMATION:

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase;

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase;

TITLE OF INVENTION: Number: us/09/857,581

CURRENT APPLICATION NUMBER: us/09/857,581

CURRENT FILING DATE: 1999-01-27

PRIOR FILING DATE: 1999-01-27

PRIOR FILING DATE: 1999-07-20

PRIOR FILING DATE: 1999-07-20

PRIOR APPLICATION NUMBER: 60/144,783

PRIOR PILING DATE: 1999-07-20

PRIOR APPLICATION NUMBER: 60/156,094

NUMBER OF SEQ ID NOS: 66
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; Pred. No. 0;
7; Mismatches
CURRENT FILING DATE: 2001-06-05
PRIOR PEDINGTON NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1999-07-00
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR FILING DATE: 1999-09-24
PRIOR FILING DATE: 1999-09-24
PRIOR FILING DATE: 1999-09-24
SEQ ID NO 20
SEQ ID NO 20
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Best Local Similarity 97.4%;
Matches 486; Conservative
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TYPE: PRT
ORGANISM: Lens culinaris
US-09-857-581-20
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US-09-857-581-16
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477; Conservative 10; Mismatches
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; GENERAL INFORMATION:
    APPLICANT: E. I. du Pont de Nemours and Company
    TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
    FILE REFERENCE: BB1339 PCT
    CURRENT APPLICATION NUMBER: US/09/857,581
    CURRENT FILING DATE: 2001-06-05
    PRIOR FILING DATE: 1999-07-27
    PRIOR APPLICATION NUMBER: 60/117,769
    PRIOR PILING DATE: 1999-07-20
    PRIOR PILING DATE: 1999-07-20
    PRIOR FILING DATE: 1999-07-20
    PRIOR FILING DATE: 1999-07-20
    NUMBER OF SEQ ID NOS: 66
    SOFTHARE: Microsoft Office 97
    SOFTHARE: Microsoft Office 97
    LENGTH: 498
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US-09-857-581-38
SOFTWARE: Microsoft Office
SEQ ID NO 16
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TYPE: PRT
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US-09-857-581-16
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GenCore version (c) 1993 - 2004
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protein search, using sw model OM protein Run on:

1, 2004, 07:04:37; Search time 1 Seconds (without alignments) 5.031 Million cell updates/sec March

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Perfect score:

2683 1 MLELALGLIVIALFIHIRP.....AHSIVCVPLARIGVASKILS 521 Sequence:

BLOSUM62 Scoring table:

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Total number of hits satisfying chosen parameters:

19 segs, 9656 residues

Searched:

13

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

ramirez581.pep:* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Sequence 26, Application US/09857581
GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
US-09-857-581-26
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241 DPVVERVIKKRREIVRRRKNGEVVEGEVSGVFLDTLLEFAEDETMEIKITKDHIKGLVVD 300
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TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
CURRENT PERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: 60/117,769
PRIOR PELING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR PILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 24
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tive 1; Mismatches
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
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CRGANISM: Phaseolus aureus
US-09-857-581-26
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Best Local Similarity 99.0
Matches 516; Conservative
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Best Local Similarity 99.0%;
Matches 516; Conservative
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CRGANISM: Phaseolus aureus
US-09-857-581-30
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Pred. No. 0;
1; Mismatches 4;
                                                       DB 1;
                                                      Score 2651; DE pred. No. 0; 1; Mismatches
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Best Local Similarity 99.0%;
Matches 516; Conservative
                                                       98.8%;
             TYPE: PRT
, ORGANISM: Phaseolus aureus
US-09-857-581-24
                                                       Query Match
Best Local Similarity 99.0
Matches 516; Conservative
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     LENGTH: 522
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APPLICANT: B. I du Pont de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERRINCE: BB133 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
PRIOR PILING DATE: 1999-01-27,
PRIOR FILING DATE: 1999-01-27,
PRIOR PLILING DATE: 1999-07-20
PRIOR PLILING DATE: 1999-07-20
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-24
NUMBER OF SEQ ID NOS: 66
SOFTHARB: Microsoft Office 97
SEQ ID NO 30
LENGTH: 521
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                                                                      IDLSKKHGPLFSLYFGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVA
                                                                                                                                                                                             MVPFGPYWKFVRKLIMNDLPNATTVNKLRPLRTQQTRKFLRVMAQGAEAQKPLDLTEELL
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MILELALGILVLALFIHLRPTPTAKSKALRHLPNPPSPKPRLPFIGHLHLLKDKLLHYAL
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Db 241 DPVVERVIKKRREIVRRKNGEVVEGEVSGVFLDTLLEFAEDETTEIKITKDHIKGLVVD 300 Qy 301 FFSAGTDSTAVATEWALAELINNPKULEKARBEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 Bb 301 FFSAGTDSTAVATEWALAELINNPKULEKARBEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 Qy 361 ETFRAHPPLPVVKRKCTEECEINGYVIPEGALILENVWQVGRDPKYWDRPSEFRPERFLE 420 Qy 421 TGAEGEAGPLDLRGQHPQLLPFGSGRRWCPGVNLATSGWATLLASLIQCFDLQVLGPQGQ 480 421 TGAEGEAPLDLRGQHPQLLPFGSGRRWCPGVNLATSGWATLLASLIQCFDLQVLGPQGQ 480 Qy 481 ILKGGDAKVSWEERAGLTVPRAHSLVVVPLABIGVASKLLS 521 Db 481 ILKGGDAKVSWEERAGLTVPRAHSLVVVPLABIGVASKLLS 521	RESULT 6 US-09-857-581-32 Sequence 32, Application US/09857581 Sequence 32, Application US/09857581 SETUREAL INFORMATION: TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase FILE REPERENCE: BB1339 PCT CURRENT APPLICATION NUMBER: US/09/857,581	; CURRENT FILING DATE: 2001-06-05 ; PRIOR APPLICATION NUMBER: 60/117,769 ; PRIOR FILING DATE: 1999-01-27 ; PRIOR APPLICATION NUMBER: 60/144,783 ; PRIOR PILING DATE: 1999-09-24 ; PRIOR PILING DATE: 1999-09-24 ; PRIOR PILING DATE: 1999-09-24 ; NUMBER OF SEQ ID NOS: 66 ; SEQ ID NO 32 ; LENGTH: 521 ; TYPE: PRT ; ORGANISM: Trifolium pratense US-09-857-581-32		IDLSKKHGPLFSLYFGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSYA	OY 181 KWINSTISMOMICBABEIRDIAREVIKKIFGEYSLIDETWELKILKVOKKERRIDDILINKF 240 181 KWINSTISMOMICBABEIRDIAREVIKIFGEYSLIDETWELKHLKVOKYEKRIDDILINKF 240 CY 241 DPUVERVIKKRREIVERREKOGEVSGEVSCHELDTLEFERDETWEIKTTKDHIEGLUVD 300 241 DPUVERVIKKRREIVERREKOGEVDEGEVSGVFLDTLLEFAEDETWEIKTTKDHIEGLUVD 300 241 DPUVERVIKKRREIVERREKOGEVDEGEVSGVFLDTLLEFAEDETWEIKTTKDHIEGLUVD 300	QY 301 FPSAGTDSTAVATEWALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 301 FPSAGTDSTAVATEWALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 QY 361 ETFRMHPPLPVVKRKCTEECEINGYVIPEGALILFNVWQVGRDPKYWDRPSEFRPERFIE 420 361 ETFRMHPPLPVVKRKCTEECEINGYVIPEGALILFNVWQVGRDPKYWDRPSEFRPERFIE 420
Db 121 MVPFGPYWKFVKLIMUDLLMATTVNKLRPLRTQQIRKFLRVMAQGAEAQRPLJLTBELL 180 Qy 181 KWTNSTISMMMLGBABEIRDIAREVLKIFGEYSLTDPIWPLKHLKVGKYERRIDDILNKF 240 181 KWTNSTISMMMLGBABEIRDIAREVLKIFGEYSLTDPIWPLKHLKVGKYERRIDDILNKF 240 181 KWTNSTISMMMLGBABEIRDIAREVLKIFGEYSLTDPIWPLKHLKVGKYERRIDDILNKF 240 Qy 241 DPVVERVIKKAREIVARRKNGEVVEGEVSGVFLDTLLEFAEDETMEIKITKDHIEGLVVD 300 242 DPVVERVIKKAREIVARRKNGEVVEGEVSGVFLDTLLEFAEDETMEIKITKDHIEGLVVD 300 Qy 301 FFSAGTDSTAVATEMALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 Db 301 FFSAGTDSTAVATEMALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 Qy 301 FFSAGTDSTAVATEMALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 Qy 301 FFSAGTDSTAVATEMALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 Qy 301 FFSAGTDSTAVATEMALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 Db 301 FFSAGTDSTAVATEMALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVK 360 QY 361 ETFRMHPPLPVVKRKCTEECEINGYVIPEGALILFNVWQVGRDPKYWDRPSEFRBERFE 420 361 ETFRMHPPLPVVKRKCTEECEINGYVIPEGALILFNVWQVGRDPKYWDRPSEFRBERFE 420 361 ETFRMHPPLPVVKRKCTEECEINGYVIPEGALILFNVWQVGRDPKYWDRPSEFRBERFE 420	OY 421 TGAEGEAGPLDLRGQHFOLLPFGSGRRMCPGVNLATSGMATLLASLIQCFDLQVLGPDGQ 480	RESULT 5 US-09-857-581-34 US-09-857-581-34 Sequence 34, Application US/09857581 GENERAL INFORMATION: APPLICANT: E. I. du Pont de Nemours and Company TILLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase FILE REPERRACE: BB1339 PCT CURRENT FILING DATE: 2001-06-05 PRIOR FILING DATE: 1999-01-27 PRIOR FILING DATE: 1999-01-27 PRIOR FILING DATE: 1999-07-20	PRIOR APPLICATION NUMBER: 60/156,094 PRIOR FILING DATE: 1999-09-24 NUMBER OF SOFTWARE: Microsoft Office 97 SOFTWARE: Microsoft Office 97 SEQ ID NO 34 I LENGTH: 521 TYPE: PRT ORGANISM: Trifolium pratense US-09-85-581-34	O(0) 5	IDLSKKHGPLFSLYFGSMPTVVASTPELFKLFLOTHEATSFNTRFOTSAIRKLIDLSKKHGPLFSLYFGSMPTVVASTPELFKLFLOTHEATSFNTRFOTSAIRKLIDLSKKHGPLFSLYFGSSMPTVVASTPELFKLFLOTHEATSFNTRFOTSAIRKLIMVPFGSPYMKFVRKLIMNDLPNATTVNKLRPLRTQOTRKFLRVMAQGAEAQKPLINTGATSFNTRYFLSVMAGGAEAQKPLINTGATSFNTRYFLSVMAGGAEAQKPLINTGATSFNTRYFLSTANGGAEAQKPLINTGATSFNTRYFTNTATSFNTRYFTSTANGGAEAQKPLINTGATSFNTRYFTSTANGGAEAGKPLINTGATSFNTRYFTSTANGGAEAGKPLINTGATSFNTRYFTSTANGGAEAGKPLINTGATSFNTRYFTSTANGGAEAGKPLINTGATSFNTRYFTSTANGGAFNTRYFTSTANGGAFNTRYFTSTANGGAFNTRYFTSTANGGAFNTRYFTSTANGGAFNTRYFTSTANGGAFNTRYFTSTANGGAFNTANGGAFNTRYFTSTANGGAFNTANGGAFNTANGGAFN	181 KWTNSTISWAMLGEAEBIRDIAREVLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDILNKF

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; Sequence 59, Application US/09857581; GENERAL INFORMATION:
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Matches 499; Conserv
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LENGTH: 521
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Sequence 2, Application US/09857581

GENERAL INFORMATION:

JETHER AL INFORMATION:

TITLE OF INVENTION:

Nucleic Acid Sequences Encoding Isoflavone Synthase

TITLE OF INVENTION:

CURRENT APPLICATION NUMBER: US/09/857,581

CURRENT FILING DATE: 1999-01-27

PRIOR APPLICATION NUMBER: 60/117,769

PRIOR PELING DATE: 1999-01-27

PRIOR APPLICATION NUMBER: 60/114,783

PRIOR PELING DATE: 1999-01-20

PRIOR PELING DATE: 1999-01-20

PRIOR PELING DATE: 1999-01-20

SPRIOR FILING DATE: 1999-01-20

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Pred. No. 0;
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Best Local Similarity 96.7%;
Matches 504; Conservative
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; ORGANISM: Glycine max
US-09-857-581-2
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Sequence 36, Application US/09857581

GENERAL INFORMATION:

APPLICANT: E. I. dw Pont de Nemours and Company

TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase;
FILE REFERENCE: BB1339 PCT

CURRENT APPLICATION NUMBER: US/09/857,581

CURRENT FILING DATE: 2001-06-05

PRIOR FILING DATE: 1999-01-27

PRIOR FILING DATE: 1999-01-27

PRIOR PRILORATION NUMBER: 60/144,783

PRIOR PLILORATION NUMBER: 60/144,783

PRIOR PRILOR TILING DATE: 1999-09-24

NUMBER: OF SEQ ID NOS: 66

SOFTWARE: Microsoft Office 97
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TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
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95.8%; Pred. No. 0;
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TILEO FO INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 FCT.
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT PILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-20
PRIOR FILING DATE: 1999-01-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 48
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Pred. No. 0;
1; Mismatches
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Pred. No. 0;
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                                                                                                                                               94.6%;
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Best Local Similarity 98.6%;
Matches 492; Conservative
                                                                                                                                                                       Best Local Similarity 98.4 Matches 491; Conservative
                       LENGTH: 499
TYPE: PRT
CRGANISM: Lens culinaris
US-09-857-581-22
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US-09-857-581-48
SEQ ID NO 22
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GENERAL INFORMATION:
TITLE OF INVENTION: Nucleic Acid Sequences Encoding leoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT PLADICATION NUMBER: 60/117,769
PRIOR PLLING DATE: 1999-01-27
PRIOR PLLING DATE: 1999-01-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 FGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKL 120
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Pred. No. 0;
2; Mismatches
                  PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR PELING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR PILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 59
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2001-06-05
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Best Local Similarity 98.6
Matches 492; Conservative
                                                                                                                                                                                                                                                                   TYPE: PRT

CRGANISM: Medicago sativa

US-09-857-581-59
CURRENT FILING DATE:
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US-09-857-581-22
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US-09-857-581-55
; Sequence 55, Application US/09857581
; GENERAL INFORMATION:
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US-09-857-581-55
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GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION:
TITLE OF INVENTION:
NUCLEIC Acid Sequences Encoding Isoflavone Synthase;
TITLE REPERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 1099-01-27
PRIOR FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR RILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-24
PRIOR FILING DATE: 1999-01-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 18
LENGTH: 499
TYPE: PRT
TYPE
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                              FLHLRPTFTAKSKALRHLPNPPSPKPRLPFIGHLHLLKDKLLHYALIDLSKKHGPLFSLY
                                                                  FLHURPTPTAKSKALRHLPNPPSPKPRLPFIGHLHLLKDKLLHYALIDLSKKHGPLFSLY
                                                                                                                        FGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKL
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Best Local Similarity 98.2%;
Matches 490; Conservative
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APPLICATION OF A NOTE OF A NOTE OF SEQUENCES ENCORING ISOFIAVONE SYNTHAUSE TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isofiavone Synthase FILE REPERENCE: BB1339 PCT CURRENT APPLICATION NUMBER: US/09/857,581 CURRENT FILING DATE: 2001-06-05 PRIOR PELICATION NUMBER: 60/117,769 PRIOR PELICATION NUMBER: 60/144,783 PRIOR PELING DATE: 1999-07-20 PRIOR APPLICATION NUMBER: 60/146,783 PRIOR PILING DATE: 1999-09-24 PRIOR PILING DATE: PROSE SEQ ID NOS: 66 SOFTWARE: Microsoft Office 97 SEQ ID NO 55 TREE: PRIOR PILING DATE: PRI
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Sequence 40, Application US/09857581
| GENERAL INFORMATION:
| APPLICANT: E. I. dw Pont de Nemours and Company | TITLE AND INTERNATION: | TITLE OF INVENTION: | Nucleic Acid Sequences Encoding Isoflavone Synthase | FILE REFERENCE: BB1339 PCT | CURRENT APPLICATION NUMBER: US/09/857,581 | CURRENT APPLICATION NUMBER: 60/117,769 | PRIOR APPLICATION NUMBER: 60/117,769 | PRIOR APPLICATION NUMBER: 60/144,783 | PRIOR PILING DATE: 1999-01-27 | PRIOR PILING DATE: 1999-07-20 | PRIOR PILING DATE: NOWBER: 60/156,094 | PRIOR PILING DATE: NOWBER: MICROSOFT Office 97 | PRIOR PILING DATE: DATE:
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US-09-887-581-57

US-09-887-581-57

SQUENCE 57, Application US/09857581

GENERAL INPORMATION:

APPLICANT: E. I. du Font de Nemours and Company

ITILE OF INVENTION:

CURRENT APPLICATION NUMBER: US/09/857,581

CURRENT FILING DATE: 2010-66-05

PRIOR APPLICATION NUMBER: 60/117,769

PRIOR APPLICATION NUMBER: 60/117,769

PRIOR PLILNG DATE: 1999-01-27

PRIOR APPLICATION NUMBER: 60/114,783

PRIOR FILING DATE: 1999-09-24

NUMBER OF SEQ ID NOS: 66

SOFTWARE: Microsoft Office 97

FRANCE: 100 S7
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                            241 VRRRKNGEVVEGEVSGVLLDTLLEFAEDETMEIKITKDHIKGLVVDFFSAGTDSTAVATE 300
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94.0%; Score 2523; DB 1; Length 499;
Best Local Similarity 98.2%; Pred. No. 0;
Matches 490; Conservative 1; Mismatches 8; Indels
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; ORGANISM: Medicago sativa
US-09-857-581-57
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CURRENT APPLICATION NUMBER:
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                                                           Sequence 61, Application US/09857581
GENERAL INFORMATION:
APPLICANT: B. T. dw Font de Nemours and Company
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR PLING DATE: 1999-01-27
PRIOR PLING DATE: 1999-02-24
PRIOR PLING DATE: 1999-02-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76 GSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKLI 135
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10-09-857-581-20
1 Sequence 20, Application US/09857581
1 GENERAL INFORMATION:
1 APPLICANT: E. I. du Pont de Nemours and Company
1 TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
1 FILE REFERENCE: BB1339 PCT
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97.6%; Pred. No. 0;
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Matches 486; Conservative
                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Beta vulgaris
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TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
FILE REFRENCE: BB139 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR APPLICATION NUMBER: 60/156,094
NUMBER OF SEQ ID NOS: 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315 WALAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVKETFRMHPPLPVVKR
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CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR FILING DATE: 1999-07-20
PRIOR APPLICATION NUMBER: 60/156,094
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NO 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 16, Application US/09857581; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                          93.3%;
96.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 96.8
Matches 483; Conservative
                                                                                                                                                                                                                                                                                                                                        , ORGANISM: Lens culinaris
US-09-857-581-20
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TYPE: PRT
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                                                                                                                                                                                                                                                       FGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKL 134
                                                                                                                                                                                                                                                                                     FGSMPTVVASTPELFKLFLQTHEATSFNTRFQTSATRRLTYDNSVAMVPFGPYWRFVRKL 120
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TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase
TITLE REPERENCE: BB1339 PCT
CURRENT APPLICATION NUMBER: US/09/857,581
PRIOR APPLICATION NUMBER: 60/117,769
PRIOR PILING DATE: 1999-01-27
PRIOR PILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: 60/144,783
PRIOR RILING DATE: 1999-02-24
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Microsoft Office 97
SEQ ID NOS: 66
                                                                                                                                                                                                          FIHLRPTPSAKSKALRHLPNPPSPKPRLPFIGHLHLIKDKLLHYALIDLSKKHGPLFSLS
                                                                                                                                                                                                                                                                                                                       IMNDLPNATIVNKLRPLRTQQTRKFLRVMAQGAEAQKPLDLTBELLKWTNSTISMMMLGE
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                                                                                                                    Length 499
                                                                                                                                                    10; Indels
                                                                                                                  92.5%; Score 2482; DB 1; 95.8%; Pred. No. 0;
                                                                                                                                                  11; Mismatches
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SOFTWARE: Microsoft Office 97
SEQ ID NO 16
LENGTH: 499
                                                                                                                Query Match
Best Local Similarity 95.8<sup>3</sup>
Matches 478; Conservative
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; ORGANISM: Trifolium repens
US-09-857-581-38
                                                ; TYPE: PRT
; ORGANISM: Medicago sativa
US-09-857-581-16
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US-09-857-581-38
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DB 1; Length 498;

Score 2457; Pred. No. 0;

91.6%; 95.4%;

Query Match Best Local Similarity

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                                                                                                                                              SMPTVVASTPELFKLFLQTHEATSFNTRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKLIM 136
                                                                                                                                                                                            SMPTVVASTPELFKLFLGTHEATSFNTRFQTSAIRHLTYDNSVAMVPFGPYWKFVRKLIM 121
                                                                                                                                                                                                                                                                                          122 NDLLNATTVNKLRPLRTQQIRKFLRVMAQSAEAQKPLDVTEELLKWTNSTISMMALGEAE 181
                                                                                                                                                                                                                                                                                                                                                  EIRDIAREVLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDILNKFDPVVERVIKKRREIVR 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RRKNGEVVEGEVSGVFLDTLLEFAEDETMEIKITKDHIEGLVVDFFSAGTDSTAVATEWA 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242 RRKNGEVVEGEASGVFLDTLLEFAEDETMEIKITKEQIKGLVVDFFSAGTDSTAVVTEWA 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LAELINNPKVLEKAREEVYSVVGKDRLVDEVDTQNLPYIRAIVKETFRMHPPLPVVKRKC 376
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                                             17 HLRPTFTAKSKALRHLPNPPSPKPRLPFIGHLHLLKDKLLHYALIDLSKKHGPLFSLYFG 76
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                                                                                           2 HERPTPSAISKALRHEPNPPSPRPRIPFIGHLHLEKDKLEHYAPIDLSKKHGPLFSLSFG
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Gaps
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12; Indels
11; Mismatches
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474; Conservative
                                                                                                                                                                                                                                                                                                                                                     197
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Matches
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/function="2-hydroxyisoflavanone synthase"
/note="The functional expression of this cDNA demonstrated
2-hydroxyisoflavanone synthase activity"
                                                                                                                                                                                                                                                                  /codon_start=1
/codon_start=1
/product="cytochrome P450 monooxygenase CYP93Clv2p"
/protein_id="AaD3929.1"
/db_xref="G1:S05124"
/translation="MLLELALGLLVLALFLHLRPTPTAKSKALRHLPNPPSPKPRLPF
                                                                                                                                                                                                                                                                                                                                                                                    IGHLHILKDKLLHYALIDLSKKHGPLFSLYFGSMPTVVASTPELFKLFLOTHEATSFN
TRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKLIMNDLLNATTVNKLRPLRTQQIRKFL
RVMAQGAEAQKPLDLTEELLKWTNSTISMMMLGEAEEIRDIAREVLKIFGEYSLTDFI
                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPLKTELKVGKYEKRIDDILNKFDPVVERVIKKRREIVRRRKNGEVVGGEVSGVFLDTL
LEFAEDETWEIKTIKDHIKGLVVDFFSAGTDSTAVATEWALAELINDFKVLEKAREV
YSVGKDRLVDEVDTQNLFYIRAIVKETFRMHPPLPVVKRKCTEBCEINGYVIPEGAL
ILFNVWQVGRDPKYWDRSEFRPERFLETGARGBAGFLLRQGHFQLLPFGSGRRMCP
GVNLATSGMATLLASLIQCFDLQVLGPQQILKGGDAXVSMEERAGLTVPRAHSLVCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                //note="difference compared to GenBank Accession Number AF022462; causes change of E to K (aa 295)" /replace="g" 1620 /gene="CXP93C1v2" /gene="CXP93C1v2" /note="9" pp insertion compared to GenBank Accession Number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80 ATTGGTTTTGGCTCTGTTTTCTGCACTTGCGTCCCACACCCACTGCAAAATCAAAAGCACT 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 TCGCCATCTCCCAAACCCAACAGCCAAAGCCTCGTCTTCCCTTCATAGGACACCTTCA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   302 CAAGCICTTCCTCCAAACGCAAGCAACTTCCTTCAACACAAGGTTCCAAAGCTCAGG 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="CYP91C1v2"
/note="difference compared to GenBank Accession Number
AF022463; causes change of T to I (aa 156)"
/replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="difference compared to GenBank Accession Number AF022462; causes change of P to L (aa 140)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62 ATTGGTTTTTGGCTCTGTTTCTGCACTTGCGTCCCACACCCACAAAATCAAAAGCACT
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Pred. No. 0;
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l. .1722
/organism="Glycine max"
                                              /mol_type="mRNA"
/db_xref="taxon:3847"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="CYP93Clv2"
/note="difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="CYP93Clv2"
                                                                                                                    'gene="CYP93C1v2"
                                                                                                                                              36. .1601
/gene="CYP93C1v2"
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Best Local Similarity
Matches 1704; Conserv
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Steele,C.L., Gijzen,M., Qutob,D. and Dixon,R.A.
Direct Submission
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Noble Pkwy, Ardmore, OK 73402, USA
Location/Qualifiers
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Steele, C.L., Gijzen, M., Qutob, D. and Dixon, R.A.
Molecular characterization of the enzyme catalyzing the aryl
migration reaction of isoflavonoid biosynthesis in soybean
Arch. Biochem. Biophys. 367 (1), 146-150 (1999)
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